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ATTN: BRUCE ABBOTT

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### COVER SHEET FOR RECORDING

## **CONSENT DECREE**

United States of America vs. City of Fresno

CIV F -98-5195 REC SMS

### NOTICE OF OBLIGATION TO PROVIDE ACCESS

To Whom it May Concern:

Pursuant to the terms of Article V, Section 9(b) of the Consent Decree entered into by the United States of America and the City of Fresno, which is attached, this is to give notice that the Consent Decree provides the right of access to the Federal and State Governments pursuant to the terms and conditions of Article IX for the purposes related to the work performed under this Consent Decree.

The Fresno City Council approved the terms of the Consent Decree, as presented on October 21, 1997.

98-068 P.W.File No.10083

LOIS J. SCHIFFER 1 Assistant Attorney General Environmental and Natural Resources Division 3 U.S. Department of Justice LODGED RICHARD L. BEAL Trial Attorney 4 Environmental Enforcement Section FEB 2 5 1998 5 P.O. Box 7611 Washington, D.C. 20044-7611 CLERK, U.S. DISTRICT COURT EASTERN DISTRICT OF CALIFORNIA (202) 514-4051 6 PAUL L. SEAVE 7 United States Attorney Eastern District of California 8 E. ROBERT WRIGHT 9 Assistant U.S. Attorney 1130 "O" Street, Room 3654 Fresno, CA 93721 10 (209) 498-7272 11 JUN 1 0 1998 Attorneys for the United States 12 CLERK, U.S. DISTRICT COURT EASTERN DISTRICT OF CALIFORNIA MARTIN D. KOCZANOWICZ Deputy City Attorney DEPUTY CLERK City of Fresno 14 2600 Fresno Street 15 Fresno, CA 93721-3602 16 Attorney for the City of Fresno 17 IN THE UNITED STATES DISTRICT COURT 18 FOR THE EASTERN DISTRICT OF CALIFORNIA 19 UNITED STATES OF AMERICA, CIVIL NO. CIV F- 98 - 5195 REC SMS 20 Plaintiff, v. 21 CITY OF FRESNO, 22 Defendant. 23 24 I hereby at lest and certify on.... CONSENT DECREE that the foregoing document is a full, true 25 and correct copy of the original on file in my office and in my legal custody. 26 JACK L. WAGNER CLERK, U. S. DISTRICT COURT EASTERN DISTRICT OF CALIFORNIA Deputy

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### I. BACKGROUND

- I. The United States of America ("United States"), on behalf of the Administrator of the United States Environmental Protection Agency ("EPA"), filed a complaint in this matter pursuant to Sections 106 and 107 of the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA"), 42 U.S.C. §§ 9606, 9607.
- A. The United States in its complaint seeks, inter alia:

  (1) reimbursement of costs incurred by EPA and the Department of
  Justice ("DOJ") for response actions at the Fresno Sanitary

  Landfill Superfund Site in Fresno, California, together with

  accrued interest; and (2) performance of response work by the

  defendant at the Site consistent with the National Contingency

  Plan, 40 C.F.R. Part 300 (as amended) ("NCP").
- B. In accordance with the NCP and Section 121(f)(1)(F) of CERCLA, 42 U.S.C. § 9621(f)(1)(F), EPA notified the State of California (the "State") on April 10, 1997, of negotiations with potentially responsible parties regarding the implementation of the remedial action for the Site, and EPA has provided the State with an opportunity to participate in such negotiations and be a party to this Consent Decree.

#### [C. RESERVED.]

D. In accordance with Section 122(j)(1) of CERCLA, 42
U.S.C. § 9622(j)(1), EPA notified the Department of Interior,
Regional Environmental Officer, the natural resource damage
trustee for this Site on April 1, 1997, of negotiations with the
City regarding the release of hazardous substances that may have
resulted in injury to the natural resources under Federal

trusteeship and encouraged the trustee(s) to participate in the negotiation of this Consent Decree.

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- E. The Defendant, the City of Fresno ("City"), in entering into this Consent Decree, neither admits any liability to the Plaintiff arising out of the transactions or occurrences alleged in the complaint, nor does the City acknowledge that the release or threatened release of hazardous substance(s) at or from the Site constitutes an imminent or substantial endangerment to the public health or welfare or the environment.
- F. Pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, EPA placed the Site on the National Priorities List, set forth at 40 C.F.R. Part 300, Appendix B, by publication in the Federal Register on October 4, 1989, 54 Fed. Reg. 41020.
- G. In response to a release or a substantial threat of a release of a hazardous substance(s) at or from the Site, on September 21, 1990, pursuant to 40 C.F.R. 300.430, the City commenced a Remedial Investigation and Feasibility Study ("RI/FS") for the Site.
- H. The City issued a Feasibility Study ("FS") Report in September 1992 for Operable Unit 1 ("OU1") which pertains to the containment of the trash prism. The City completed a Remedial Investigation ("RI") Report in May 1994 and issued an FS Report in July 1996 for Operable Unit 2 ("OU2") which pertains to the cleanup of the groundwater impacted by the landfill contaminants.
- I. Pursuant to Section 117 of CERCLA, 42 U.S.C. § 9617, EPA published notice of the completion of the FS and of the proposed plan for the remedial action for OU1 in March 1993 and published notice of the completion of the FS and of the proposed plan for

the remedial action for OU2 in July 1996. Both notices were published in a major local newspaper of general circulation. EPA provided an opportunity for written and oral comments from the public on the proposed plans for the remedial actions for OU1 and OU2. A copy of the transcript of the public meetings is available to the public as part of the administrative records upon which the Regional Administrator based the selection of the response actions.

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- J. The decision by EPA on the remedial actions to be implemented at the Site is embodied in two final Records of Decision ("ROD"). The ROD for OU1 was executed on September 30, 1993, and the ROD for OU2 was executed on September 30, 1996. The State has given its concurrence on these two RODs. The RODs include a responsiveness summary to the public comments. Notice of the final plans were published in accordance with Section 117(b) of CERCLA.
- K. Based on the information presently available to EPA, EPA believes that the Work for OU1 and OU2 will be properly and promptly conducted by the City if conducted in accordance with the requirements of this Consent Decree and its appendices.
- L. Solely for the purposes of Section 113(j) of CERCLA, the remedial actions selected by the RODs and the Work to be performed by the City shall constitute response actions taken or ordered by the President.
- M. The Parties recognize, and the Court by entering this Consent Decree finds, that this Consent Decree has been negotiated by the Parties in good faith and implementation of this Consent Decree will expedite the cleanup of the Site and

will avoid prolonged and complicated litigation between the Parties, and that this Consent Decree is fair, reasonable, and in the public interest.

NOW, THEREFORE, it is hereby Ordered, Adjudged, and Decreed:

# II. <u>JURISDICTION</u>

1. This Court has jurisdiction over the subject matter of this action pursuant to 28 U.S.C. §§ 1331 and 1345, and 42 U.S.C. §§ 9606, 9607, and 9613(b). This Court also has personal jurisdiction over the City. Solely for the purposes of this Consent Decree and the underlying complaint, the City waives all objections and defenses that it may have to jurisdiction of the Court or to venue in this District. The City shall not challenge the terms of this Consent Decree or this Court's jurisdiction to enter and enforce this Consent Decree.

## III. PARTIES BOUND

- 2. This Consent Decree applies to and is binding upon the United States and upon the City and its assigns. Any change in ownership or corporate status of the City, including, but not limited to, any transfer of assets or real or personal property, shall in no way alter the City's responsibilities under this Consent Decree.
- 3. The City shall provide a copy of this Consent Decree to each contractor hired to perform the Work (as defined below) required by this Consent Decree and to each person representing the City with respect to the Site or the Work and shall condition all contracts entered into hereunder upon performance of the Work

in conformity with the terms of this Consent Decree. The City or its contractors shall provide written notice of the Consent Decree to all subcontractors hired to perform any portion of the Work required by this Consent Decree. The City shall nonetheless be responsible for ensuring that its contractors and subcontractors perform the Work contemplated herein in accordance with this Consent Decree. With regard to the activities undertaken pursuant to this Consent Decree, each contractor and subcontractor shall be deemed to be in a contractual relationship with the City within the meaning of Section 107(b)(3) of CERCLA, 42 U.S.C. § 9607(b)(3).

#### IV. DEFINITIONS

4. Unless otherwise expressly provided herein, terms used in this Consent Decree which are defined in CERCLA or in regulations promulgated under CERCLA shall have the meaning assigned to them in CERCLA or in such regulations. Whenever terms listed below are used in this Consent Decree or in the appendices attached hereto and incorporated hereunder, the following definitions shall apply:

"CERCLA" shall mean the Comprehensive Environmental
Response, Compensation, and Liability Act of 1980, as amended, 42
U.S.C. §§ 9601 et seq.

"Consent Decree" shall mean this Decree and all appendices attached hereto (listed in Section XXIX). In the event of conflict between this Decree and any appendix, this Decree shall control.

"Day" shall mean a calendar day unless expressly stated to be a working day. "Working day" shall mean a day other than a Saturday, Sunday, or Federal holiday. In computing any period of time under this Consent Decree, where the last day would fall on a Saturday, Sunday, or Federal holiday, the period shall run until the close of business of the next working day.

22.

"EPA" shall mean the United States Environmental Protection Agency and any successor departments or agencies of the United States.

"Future Response Costs" shall mean all costs, including, but not limited to, direct and indirect costs, that the United States incurs in reviewing or developing plans, reports and other items pursuant to this Consent Decree, verifying the Work, or otherwise implementing, overseeing, or enforcing this Consent Decree, including, but not limited to, payroll costs, contractor costs, travel costs, laboratory costs, the costs incurred pursuant to Sections VII, IX (including, but not limited to, attorneys fees and any monies paid to secure access and/or to secure institutional controls, including the amount of just compensation), XV, and Paragraph 85 of Section XXI. Future Response Costs shall also include all Interim Response Costs.

"Interim Response Costs" shall mean all costs, including direct and indirect costs, (a) paid by the United States in connection with the Site between January 1, 1996 and the effective date of this Consent Decree, or (b) incurred prior to the effective date of this Consent Decree but paid after that date.

"Interest," shall mean interest at the rate specified for interest on investments of the Hazardous Substance Superfund established under Subchapter A of Chapter 98 of Title 26 of the

U.S. Code, compounded on October 1 of each year, in accordance with 42 U.S.C. § 9607(a).

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"Municipal Solid Waste" shall mean all waste materials generated by households, including single- and multi-family residences, and hotels and motels. The term also includes waste materials generated by commercial, institutional, and industrial sources, to the extent such wastes (A) are essentially the same as waste normally generated by households, or (B) are collected and disposed of with other municipal solid waste or sewage sludge as part of normal municipal solid waste collection services and, regardless of when generated, would be considered conditionally exempt small quantity generator waste under regulations issued pursuant to Section 3001(d)(4) of the Solid Waste Disposal Act (42 U.S.C. 6921(d)(4)). Examples of Municipal Solid Waste include food and yard waste, paper, clothing, appliances, consumer product packaging, disposable diapers, office supplies, cosmetics, glass and metal food containers, elementary or secondary school science laboratory waste, and household hazardous waste. The term does not include combustion ash generated by resource recovery facilities or municipal incinerators, or waste from manufacturing or processing (including pollution control) operations not essentially the same as waste normally generated by households.

"National Contingency Plan" or "NCP" shall mean the National Oil and Hazardous Substances Pollution Contingency Plan promulgated pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, codified at 40 C.F.R. Part 300, and any amendments thereto.

"Operation and Maintenance" or "O & M" shall mean all

activities required to maintain the effectiveness of the Remedial Action as required under the Operation and Maintenance Plan approved or developed by EPA pursuant to this Consent Decree and the Statement of Work (SOW).

"Paragraph" shall mean a portion of this Consent Decree identified by an Arabic numeral or an upper case letter.

"Parties" shall mean the United States and the City.

"Past Response Costs" shall mean all costs, including, but not limited to, direct and indirect costs, that the United States paid at or in connection with the Site through December 31, 1995, plus Interest on all such costs which has accrued pursuant to 42 U.S.C. § 9607(a) through such date.

"Performance Standards" shall mean the cleanup standards and other measures of achievement of the goals of the Remedial Actions, set forth in Sections 9 and 10 of the September 30, 1993 ROD, Section 10 of the September 30, 1996 ROD, Section 7.0 of the SOW for Operable Unit One, and Section 7.0 of the SOW for Operable Unit Two.

"Plaintiff" shall mean the United States.

"Project Coordinator" for the City shall mean the City's designated representative who shall have the authority, duties, and responsibilities for overseeing the implementation of this Consent Decree.

"RCRA" shall mean the Solid Waste Disposal Act, as amended,
42 U.S.C. §§ 6901 et seq. (also known as the Resource
Conservation and Recovery Act).

"Records of Decision" or "RODs" shall mean the EPA Records of Decision relating to the two Operable Units at the Site: for

OUI signed on September 30, 1993, by the Regional Administrator, EPA Region 9, or his/her delegate, and all attachments thereto; for OU2 signed on September 30, 1996, by the Regional Administrator, EPA Region 9 or his/her delegate, and all attachments thereto. The RODs are attached as Appendix A and are hereby incorporated by reference into this Decree.

"Remedial Actions" shall mean those activities, except for Operation and Maintenance, to be undertaken by the City to implement the RODs, in accordance with the SOW, the final Remedial Action Work Plan for OU1, the Remedial Design and Remedial Action Report for OU2, and other plans approved by EPA.

"Remedial Action Work Plan" shall mean the documents developed pursuant to Paragraph 11 of this Consent Decree and approved by EPA, and any amendments thereto.

"Remedial Design/Remedial Action Report" shall mean the documents developed pursuant to Paragraph 12 of this Consent Decree and approved by EPA, and any amendments thereto.

"Site" shall mean the Fresno Sanitary Landfill Superfund
Site, encompassing approximately 145 acres, that is located four
miles southwest of the City of Fresno, bounded on the north by
Jensen Avenue, on the east by West Avenue, on the south by North
Avenue and on the west by agricultural fields, in Fresno County,
California, and depicted generally on the map attached as
Appendix C.

"State" shall mean the State of California, its employees and authorized representatives represented by the Department of Toxic Substances and Control (DTSC) as the lead agency.

"Statement of Work" or "SOW" shall mean the statement of

work for implementation of the Remedial Designs, Remedial Actions, and Operation and Maintenance at the Site, as set forth in Appendix B to this Consent Decree and any modifications made in accordance with this Consent Decree.

"Supervising Contractor" shall mean the principal contractor retained by the City to supervise and direct the implementation of the Work on either of the two operable units under this Consent Decree.

"United States" shall mean the United States of America.

"Waste Material" shall mean (1) any "hazardous substance" under Section 101(14) of CERCLA, 42 U.S.C. § 9601(14); (2) any pollutant or contaminant under Section 101(33), 42 U.S.C. § 9601(33); [(3) any "solid waste" under Section 1004(27) of RCRA, 42 U.S.C. § 6903(27).

"Work" shall mean all activities the City is required to perform under this Consent Decree, except those required by Section XXV (Retention of Records).

## V. GENERAL PROVISIONS

### 5. Objectives of the Parties

The objectives of the Parties in entering into this Consent
Decree are to protect public health or welfare or the environment
at the Site expeditiously by agreeing upon the design and
implementation of response actions at the Site by the City, to
reimburse Interim and Future Response Costs of the Plaintiff, and
to resolve the claims of Plaintiff including claims for past
costs against the City as provided in this Consent Decree.

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### 6. Commitments by the City

The City shall finance and perform the Work in accordance with this Consent Decree, the RODs, the SOWs, and all work plans and other plans, standards, specifications, and schedules set forth herein or developed by the City and approved by EPA pursuant to this Consent Decree. The City shall also reimburse the United States for Interim and Future Response Costs as provided in this Consent Decree.

## 7. Compliance With Applicable Law

All activities undertaken by the City pursuant to this

Consent Decree shall be performed in accordance with the

requirements of all applicable federal and state laws and

regulations. The City must also comply with all applicable or

relevant and appropriate requirements of all Federal and state

environmental laws as set forth in the RODs and the SOWs. The

activities conducted pursuant to this Consent Decree, if approved

by EPA, shall be considered to be consistent with the NCP.

### 8. Permits

- a. As provided in Section 121(e) of CERCLA and Section 300.400(e) of the NCP, no permit shall be required for any portion of the Work conducted entirely on site (i.e., within the areal extent of contamination or in very close proximity to the contamination and necessary for implementation of the Work). Where any portion of the Work that is not on site requires a federal or state permit or approval, the City shall submit timely and complete applications and take all other actions necessary to obtain all such permits or approvals.
  - b. The City may seek relief under the provisions of

Section XVIII (Force Majeure) of this Consent Decree for any delay in the performance of the Work resulting from a failure to obtain, or a delay in obtaining, any permit required for the Work.

c. This Consent Decree is not, and shall not be construed to be, a permit issued pursuant to any federal or state statute or regulation.

## 9. Notice of Obligations to Successors-in-Title

- a. Within fifteen (15) days after the entry of this

  Consent Decree, the City shall record a certified copy of this

  Consent Decree with the Recorder's Office or Registry of Deeds or

  other appropriate office in Fresno County, State of California.

  Thereafter, each deed, title, or other instrument conveying an

  interest in the property included in the Site shall contain a

  notice stating that the property is subject to this Consent

  Decree and shall reference the recorded location of the Consent

  Decree and any restrictions applicable to the property under this

  Consent Decree.
- b. The obligations of the City with respect to the provision of access under and the implementation of institutional controls under Section IX (Access) shall be binding upon the City and any and all persons who subsequently acquire any such interest or portion thereof (hereinafter "Successors-in-Title"). Within fifteen (15) days after the entry of this Consent Decree, the City shall record at the Recorder's Office, or Registry of Deeds or other appropriate office where land ownership and transfer records are maintained for the property owned by the City which is included in the Site a notice of obligation to

provide access under Section IX (Access) and related covenants, if any. Each subsequent instrument conveying an interest to any such property included in the Site shall reference the recorded location of such notice and covenants applicable to the property.

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The City and any Successor-in-Title shall, at least thirty (30) days prior to the conveyance of any such interest, give written notice of this Consent Decree to the grantee and written notice to EPA of the proposed conveyance, including the name and address of the grantee, and the date on which notice of the Consent Decree was given to the grantee. the event of any such conveyance, the City's obligations under this Consent Decree, including its obligations to provide or secure access pursuant to Section IX, shall continue to be met by the City. In addition, if the United States approves, the grantee may perform some or all of the Work under this Consent Decree. In no event shall the conveyance of an interest in property that includes, or is a portion of, the Site release or otherwise affect the liability of the City to comply with the Consent Decree, without prior EPA approval.

### VI. PERFORMANCE OF THE WORK BY THE CITY

### 10. Selection of Supervising Contractor

a. All aspects of the Work to be performed by the City pursuant to Sections VI (Performance of the Work by the City), VII (Remedy Review), VIII (Quality Assurance, Sampling and Data Analysis), and XV (Emergency Response) of this Consent Decree shall be under the direction and supervision of the Supervising Contractor for each operable unit, the selection of which shall be subject to disapproval by EPA. Within ten (10)

days after the bid approval by the City Council, the City shall notify EPA in writing of the name, title, and qualifications of any contractor proposed to be the Supervising Contractor. EPA will issue a notice of disapproval or an authorization to proceed. EPA shall not withhold approval of the City's Supervising Contractor unreasonably. If EPA disapproves the City's Supervising Contractor, EPA shall state the grounds for its disapproval. If at any time thereafter, the City proposes to change a Supervising Contractor, the City shall give such notice to EPA and must obtain an authorization to proceed from EPA, after a reasonable opportunity for review and comment by the State, before the new Supervising Contractor performs, directs, or supervises any Work under this Consent Decree.

- b. If EPA disapproves a proposed Supervising
  Contractor, EPA will notify the City in writing. The City shall
  submit to EPA a list of contractors, including the
  qualifications of each contractor, that would be acceptable to it
  within thirty (30) days of receipt of EPA's disapproval of the
  contractor previously proposed. EPA will provide written notice
  of the names of any contractor(s) that it disapproves and an
  authorization to proceed with respect to any of the other
  contractors. The City may select any contractor from that list
  that is not disapproved and shall notify EPA of the name of the
  contractor selected within twenty one (21) days of EPA's
  authorization to proceed.
- c. If EPA fails to provide written notice of its authorization to proceed or disapproval as provided in this Paragraph and this failure prevents the City from meeting one or

more deadlines in a plan approved by the EPA pursuant to this Consent Decree, the City may seek relief under the provisions of Section XVIII (Force Majeure) herein.

### 11. Remedial Action for OU1

- a. The City agreed to perform remedial design for OU1 pursuant to Administrative Order on Consent ("AOC"), U.S. EPA Docket No. 94-07, effective December 1993. EPA and the United States hereby agree that the requirements of the approved Remedial Design, which is appended to said AOC, will become an enforceable part of this Consent Decree on the effective date of this Consent Decree, and that all other requirements of said AOC will be superseded by the requirements of this Consent Decree, as of the effective date of this Consent Decree. The Remedial Design for OU1 has been completed by the City and approved by EPA.
- b. Within eight weeks after the lodging of this Consent Decree, the City shall submit to EPA and the State, a Work Plan for the performance of the Remedial Action for OU1 (hereinafter referred to as "Remedial Action Work Plan."). The Remedial Action Work Plan shall provide for construction and implementation of the remedy set forth in the OU1 ROD, and achievement of the Performance Standards, in accordance with this Consent Decree, the OU1 ROD, the SOW, and the design plans and specifications developed in accordance with the Remedial Design for OU1 approved by EPA. Upon approval by EPA, the Remedial Action Work Plan shall be incorporated into and become enforceable under this Consent Decree. At the same time as it submits the Remedial Action Work Plan, the City shall submit to

EPA and the State a Health and Safety Plan for field activities required by the Remedial Action Work Plan which conform to the applicable Occupational Safety and Health Administration and EPA requirements including, but not limited to, 29 CFR 1910.120.

- c. The Remedial Action Work Plan shall include those activities and deliverables identified in the SOW for OU1 and upon approval by EPA, shall be incorporated into and become enforceable under this Consent Decree.
- d. The comprehensive schedule for the entire project identified in the Remedial Action Work Plan and approved by EPA becomes enforceable under this Consent Decree.
- e. Upon approval of the Remedial Action Work Plan by EPA, after a reasonable opportunity for review and comment by the State, the City shall implement the activities required under the Remedial Action Work Plan. The City shall submit to EPA and the State all plans, submittals, or other deliverables required under the approved Remedial Action Work Plan in accordance with the approved schedule for review and approval pursuant to Section XI (EPA approval of Plans and Other Submissions). Unless otherwise approved by EPA, the City shall not commence physical Remedial Action activities at OU1 prior to approval of the Remedial Action Work Plan.

## 12. Remedial Design/Remedial Action for OU2

a. Within twelve weeks after the lodging of this

Consent Decree, the City shall submit to EPA and the State, a

Work Plan for the performance of the Remedial Design and Remedial

Action for OU2 (hereinafter referred to as "Remedial

Design/Remedial Action Report"). The Remedial Design/Remedial

Action Report shall provide for the design elements and construction and implementation of the remedy set forth in the OU2 ROD and achievement of the Performance Standard, in accordance with this Consent Decree, the OU2 ROD, and the SOW for OU2. Upon approval by EPA, the Remedial Design/Remedial Action Report shall be incorporated into and become enforceable under this Consent Decree.

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- b. The Remedial Design/Remedial Action Report shall include the activities and deliverables identified in the SOW for OU2 and upon approval by EPA, shall be incorporated into and become enforceable under this Consent Decree.
- c. The comprehensive schedule for the entire project identified in the Remedial Design/Remedial Action Report for OU2 and approved by EPA becomes enforceable under this Decree.
- d. Upon approval of the Remedial Design/Remedial Action Report by EPA, after a reasonable opportunity for review and comment by the State, the City shall implement the activities required under the Remedial Design Report. The City shall submit to EPA and the State all plans, submittals, or other deliverables required under the approved Remedial Design Report in accordance with the approved schedule for review and approval pursuant to Section XI (EPA approval of Plans and Other Submissions). Unless otherwise approved by EPA, the City shall not commence physical Remedial Action activities at OU2 prior to approval of the Remedial Design Report. Such approval shall not be unreasonably withheld by EPA.
- 13. The City shall continue to implement the Remedial Actions and O&M for OU1 and OU2 until the Performance Standards

are achieved and for so long thereafter as is otherwise required under this Consent Decree.

## 14. Modification of the SOW or Related Work Plans.

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- a. If EPA determines that modification to the work specified in the SOWs and/or in work plans developed pursuant to the SOWs is necessary to achieve and maintain the Performance Standards or to carry out and maintain the effectiveness of the remedy set forth in the RODs, EPA may require that such modification be incorporated in the SOWs and/or such work plans. Provided, however, that a modification may only be required pursuant to this Paragraph to the extent that it is consistent with the scope of the remedy selected in the RODs.
- b. For the purposes of this Paragraph 14 and
  Paragraphs 48 and 49 only, the "scope of the remedy selected in
  the RODs" are: for OU1: containing subsurface migration, surface
  emissions of landfill gas, leachate generation and migration, and
  erosion and transport of waste materials; for OU2: phased
  remediation of the contaminated groundwater, with phase one
  containing the contaminated groundwater underneath the landfill
  by installing pumping wells along the perimeter of the landfill,
  phase two preventing the spread of the groundwater plume into the
  clean portions of the aquifer, and phase three reducing the
  contaminant levels at the contained groundwater plume to maximum
  contaminant levels ("MCLs") by pump and treat, unless shown to be
  technically impracticable.
- c. If the City objects to any modification determined by EPA to be necessary pursuant to this Paragraph, it may seek dispute resolution pursuant to Section XIX (Dispute Resolution),

Paragraph 65 (record review). The SOW and/or related work plans shall be modified in accordance with final resolution of the dispute.

- d. The City shall implement any work required by any modifications incorporated in the SOW and/or in work plans developed pursuant to the SOWs in accordance with this Paragraph. Nothing in this Paragraph shall be construed to limit EPA's authority to require performance of further response actions as otherwise provided in this Consent Decree.
- 15. The City acknowledges and agrees that nothing in this Consent Decree, the SOWs, or the Remedial Actions Work Plans constitutes a warranty or representation of any kind by Plaintiff that compliance with the work requirements set forth in the SOWs and the Work Plans will achieve the Performance Standards.
- 16. The City shall, prior to any off-Site shipment of Waste Material from the Site to an out-of-state waste management facility, provide written notification to the appropriate state environmental official in the receiving facility's state and to the EPA Project Coordinator of such shipment of Waste Material. However, this notification requirement shall not apply to any off-Site shipments when the total volume of all such shipments will not exceed 10 cubic yards.
- a. The City shall include in the written notification the following information, where available: (1) the name and location of the facility to which the Waste Material is to be shipped; (2) the type and quantity of the Waste Material to be shipped; (3) the expected schedule for the shipment of the Waste Material; and (4) the method of transportation. The City shall

notify the state in which the planned receiving facility is located of major changes in the shipment plan, such as a decision to ship the Waste Material to another facility within the same state, or to a facility in another state.

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b. The identity of the receiving facility and state will be determined by the City following the award of the contract for Remedial Action construction. The City shall provide the information required by Paragraph 16(a) as soon as practicable after the award of the contract and before the Waste Material is actually shipped.

## VII. REMEDY REVIEW

- 17. <u>Periodic Review</u>. At least every five years as required by Section 121(c) of CERCLA and any applicable regulations, the City shall conduct any studies and investigations as requested by EPA, in order to permit EPA to conduct reviews of whether the Remedial Actions are protective of human health and the environment.
- 18. EPA Selection of Further Response Actions. If EPA determines, at any time, that the Remedial Actions are not protective of human health and the environment, EPA may select further response actions for the Site in accordance with the requirements of CERCLA and the NCP.
- 19. Opportunity To Comment. The City and, if required by Sections 113(k)(2) or 117 of CERCLA, the public, will be provided with an opportunity to comment on any further response actions proposed by EPA as a result of the review conducted pursuant to Section 121(c) of CERCLA and to submit written comments for the record during the comment period.

The City's Obligation To Perform Further Response 20. If EPA selects further response actions for the Site, Actions. the City shall undertake such further response actions to the extent that the reopener conditions in Paragraph 81 or Paragraph 82 (United States' reservations of liability based on unknown conditions or new information) are satisfied. The City may invoke the procedures set forth in Section XIX (Dispute Resolution) to dispute (1) EPA's determination that the reopener conditions of Paragraph 81 or Paragraph 82 of Section XXI (Covenants Not To Sue by Plaintiff[s]) are satisfied, (2) EPA's determination that the Remedial Actions are not protective of human health and the environment, or (3) EPA's selection of further response actions. Disputes pertaining to whether the Remedial Actions are protective or to EPA's selection of further response actions shall be resolved pursuant to Paragraph 65 (record review).

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21. Submissions of Plans. If the City is required to perform further response actions pursuant to Paragraph 20, it shall submit a plan for such work to EPA for approval in accordance with the procedures set forth in Section VI (Performance of the Work by the City) and shall implement the plan approved by EPA in accordance with the provisions of this Decree.

# VIII. OUALITY ASSURANCE, SAMPLING, and DATA ANALYSIS

22. The City shall use quality assurance, quality control, and chain of custody procedures for all treatability, design, compliance and monitoring samples in accordance with \*EPA Requirements for Quality Assurance Project Plans for

Environmental Data Operation," (EPA QA/R5; "Preparing Perfect Project Plans," (EPA /600/9-88/087), and subsequent amendments to such guidelines upon notification by EPA to the City of such amendment. Amended guidelines shall apply only to procedures conducted after such notification. Prior to the commencement of any monitoring project under this Consent Decree, the City shall submit to EPA for approval, after a reasonable opportunity for review and comment by the State, a Quality Assurance Project Plan ("QAPP") that is consistent with the SOWs, the NCP and applicable guidance documents. If relevant to the proceeding, the Parties agree that validated sampling data generated in accordance with the QAPP, and reviewed and approved by EPA shall be admissible as evidence, without objection, in any proceeding under this Decree. The City shall ensure that EPA and State personnel and their authorized representatives are allowed access at reasonable times to all laboratories utilized by the City in implementing this Consent Decree. In addition, the City shall ensure that such laboratories shall analyze all samples submitted by EPA pursuant to the QAPP for quality assurance monitoring. The City shall ensure that the laboratories, which it utilizes for the analysis of samples taken pursuant to this Decree, perform all analyses according to accepted EPA methods. Accepted EPA methods consist of those methods which are documented in the "Contract Lab Program Statement of Work for Inorganic Analysis" and the "Contract Lab Program Statement of Work for Organic Analysis," dated February 1988, and any amendments made thereto during the course of the implementation of this Decree. The City shall ensure that all laboratories it uses for analysis of samples

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taken pursuant to this Consent Decree participate in an EPA or EPA-equivalent QA/QC program. The City shall ensure that all field methodologies utilized in collecting samples for subsequent analysis pursuant to this Decree will be conducted in accordance with the procedures set forth in the QAPP approved by EPA.

23. Upon request, the City shall allow split or duplicate

- 23. Upon request, the City shall allow split or duplicate samples to be taken by EPA and the State or their authorized representatives. The City shall notify EPA and the State not fewer than twenty eight (28) days in advance of any sample collection activity, unless shorter notice is agreed to by EPA. In addition, EPA and the State shall have the right to take any additional samples that EPA or the State deem necessary. Upon request, EPA and the State shall allow the City to take split or duplicate samples of any samples they take as part of the Plaintiff's oversight of the City is implementation of the Work.
- 24. The City shall submit to EPA and the State two copies of the results of all sampling and/or tests or other data obtained or generated by or on behalf of the City with respect to the Site and/or the implementation of this Consent Decree, unless EPA agrees otherwise.
- 25. Notwithstanding any provision of this Consent Decree, the United States hereby retains all of its information gathering and inspection authorities and rights, including enforcement actions related thereto, under CERCLA, RCRA and any other applicable statutes or regulations.

### IX. ACCESS AND INSTITUTIONAL CONTROLS

26. Commencing upon the date of lodging of this Consent Decree, the City agrees to provide the United States and the

State and their representatives, including EPA and its contractors, upon reasonable notice, access at all reasonable times to the Site and any other property to which access is required for the implementation of this Consent Decree, to the extent access to the property is controlled by the City, for the purposes of conducting any activity related to this Consent Decree including, but not limited to:

a. Monitoring the Work;

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- b. Verifying any data or information submitted to the United States:
- c. Conducting investigations relating to contamination at or near the Site;
  - d. Obtaining samples;
- e. Assessing the need for, planning of, or implementation of additional response actions at or near the Site;
- f. Inspecting and copying records, operating logs, contracts, or other documents maintained or generated by the City or its agents, consistent with Section XXIV; and
- g. Assessing the City's compliance with this Consent Decree.
- 27. To the extent that the Site or any other property to which access is required for the implementation of this Consent Decree is owned or controlled by persons other than the City, the City shall use best efforts to secure from such persons access for the City, as well as for the United States and the State and their representatives, including, but not limited to, its contractors, as necessary to effectuate this Consent Decree. For

purposes of this Paragraph, "best efforts" includes the payment of reasonable sums of money in consideration of access. If, after best efforts by the City, any access required to complete the Work is not obtained within forty five (45) days of the date of lodging of this Consent Decree, or within forty five (45) days of the date EPA notifies the City in writing that additional access beyond that previously secured is necessary, the City shall promptly notify the United States in writing, and shall include in that notification a summary of the steps the City has taken to attempt to obtain access. The United States or the State may, as it deems appropriate, assist the City in obtaining access. The City shall reimburse the United States or the State in accordance with the procedures in Section XVI (Reimbursement of Response Costs), for all costs incurred by the United States in obtaining access.

28. Notwithstanding any provision of this Consent Decree, the United States retains all of its access authorities and rights, including enforcement authorities related thereto, under CERCLA, RCRA and any other applicable statute or regulations.

#### X. REPORTING REQUIREMENTS

29. In addition to any other requirement of this Consent Decree, the City shall submit to EPA and the State two copies of written monthly progress reports that: (a) describe the actions which have been taken toward achieving compliance with this Consent Decree during the previous month; (b) include a summary of all results of sampling and tests and all other data received or generated by the City or its contractors or agents in the previous month; (c) identify all work plans, plans and other

deliverables required by this Consent Decree completed and submitted during the previous month; (d) describe all actions, including, but not limited to, data collection and implementation of work plans, which are scheduled for the next six weeks and provide other information relating to the progress of construction, including, but not limited to, critical path diagrams, Gantt charts and Pert charts; (e) include information regarding percentage of completion, unresolved delays encountered or anticipated that may affect the future schedule for implementation of the Work, and a description of efforts made to mitigate those delays or anticipated delays; (f) include any modifications to the work plans or other schedules that the City has proposed to EPA or that have been approved by EPA; and (g) describe all activities undertaken in support of the Community Relations Plan during the previous month and those to be undertaken in the next six weeks. The City shall submit these progress reports to EPA and the State by the tenth day of every month following the lodging of this Consent Decree until EPA notifies the City pursuant to Paragraph 49.b of Section XIV (Certification of Completion). During Operation and Maintenance, the City shall submit progress reports annually for OU1 and semi-If requested by EPA or the State, the City annually for OU2. shall also provide briefings for EPA to discuss the progress of the Work.

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30. The City shall notify EPA of any change in the schedule described in the monthly progress report for the performance of any activity, including, but not limited to, data collection and implementation of work plans, no later than seven (7) days prior

to the performance of the activity.

31. Upon the occurrence of any event during performance of the Work that the City is required to report pursuant to Section 103 of CERCLA or Section 304 of the Emergency Planning and Community Right-to-Know Act (EPCRA). The City shall within twenty four (24) hours of the onset of such event, orally notify the EPA Project Coordinator or the Alternate EPA Project Coordinator (in the event of the unavailability of the EPA Project Coordinator), or, in the event that neither the EPA Project Coordinator nor Alternate EPA Project Coordinator is available, the Emergency Response Section, Region 9, United States Environmental Protection Agency. These reporting requirements are in addition to the reporting required by CERCLA Section 103 or EPCRA Section 304.

- 32. Within twenty (20) days of the onset of such an event, the City shall furnish to Plaintiff a written report, signed by the City's Project Coordinator, setting forth the events which occurred and the measures taken, and to be taken, in response thereto. Within thirty (30) days of the conclusion of such an event, the City shall submit a report setting forth all actions taken in response thereto.
- 33. The City shall submit two copies of all plans, reports, and data required by the SOWs, the Remedial Actions Work Plans, or any other approved plans to EPA in accordance with the schedules set forth in such plans.
- 34. All reports and other documents submitted by the City to EPA (other than the monthly progress reports referred to above) which purport to document the City's compliance with the

terms of this Consent Decree shall be signed by an authorized representative of the City, who shall be designated in writing by the City's governing body.

## XI. EPA APPROVAL OF PLANS AND OTHER SUBMISSIONS

- 35. After review of any plan, report or other item which is required to be submitted for approval pursuant to this Consent Decree, EPA, after reasonable opportunity for review and comment by the State, shall: (a) approve, in whole or in part, the submission; (b) approve the submission upon specified conditions; modify the submission to cure the deficiencies; or (d) disapprove, in whole or in part, the submission, directing that the City modify the submission. However, EPA shall not modify a submission without first providing the City at least one notice of deficiency and an opportunity to cure within three weeks, except where to do so would cause serious disruption to the Work or where previous submission(s) have been disapproved due to material defects and the deficiencies in the submission under consideration indicate a bad faith lack of effort to submit an acceptable deliverable.
- 36. In the event of approval, approval upon conditions, or modification by EPA, pursuant to Paragraph 35(a), (b), or (c), the City shall proceed to take any action required by the plan, report, or other item, as approved or modified by EPA subject only to its right to invoke the Dispute Resolution procedures set forth in Section XIX (Dispute Resolution) with respect to the modifications or conditions made by EPA. In the event that EPA modifies a submission to cure deficiencies in the original submission by following the procedure set forth in Paragraph

35(c), if the original submission had a material defect, EPA retains its right to seek stipulated penalties, as provided in Section XX (Stipulated Penalties).

- 37. a. Upon receipt of a notice of disapproval pursuant to Paragraph 35(d), the City shall, within three weeks or such longer time as specified by EPA in such notice, correct the deficiencies and resubmit the plan, report, or other item for approval. Any stipulated penalties applicable to the submission, as provided in Section XX, shall accrue during the three-week period or otherwise specified period but shall not be payable unless the resubmission is disapproved or modified due to a material defect as provided in Paragraphs 38 and 39.
- b. Notwithstanding the receipt of a notice of disapproval pursuant to Paragraph 35(d), the City shall proceed, at the direction of EPA, to take any action required by any non-deficient portion of the submission. Implementation of any non-deficient portion of a submission shall not relieve the City of any liability for stipulated penalties under Section XX (Stipulated Penalties).
- 38. In the event that a resubmitted plan, report or other item, or portion thereof, is disapproved by EPA, EPA may again require the City to correct the deficiencies, in accordance with the preceding Paragraphs. EPA also retains the right to modify or develop the plan, report or other item. The City shall implement any such plan, report, or item as modified or developed by EPA, subject only to its right to invoke the procedures set forth in Section XIX (Dispute Resolution).
  - 39. If upon resubmission, a plan, report, or item is

disapproved or modified by EPA due to a material defect, the City shall be deemed to have failed to submit such plan, report, or item timely and adequately unless the City invokes the dispute resolution procedures set forth in Section XIX (Dispute Resolution) and EPA's action is overturned pursuant to that Section. The provisions of Section XIX (Dispute Resolution) and Section XX (Stipulated Penalties) shall govern the implementation of the Work, as well as accrual and payment of any stipulated penalties during Dispute Resolution. If EPA's disapproval or modification is upheld, stipulated penalties shall accrue for such violation from the date on which the initial submission was originally required, as provided in Section XX.

40. All plans, reports, and other items required to be submitted to EPA under this Consent Decree shall, upon approval or modification by EPA, be enforceable under this Consent Decree. In the event EPA approves or modifies a portion of a plan, report, or other item required to be submitted to EPA under this Consent Decree, the approved or modified portion shall be enforceable under this Consent Decree.

### XII. PROJECT COORDINATORS

41. Within twenty (20) days of lodging this Consent Decree, the City and EPA will notify each other, in writing, of the name, address and telephone number of their respective designated Project Coordinators and Alternate Project Coordinators. If a Project Coordinator or Alternate Project Coordinator initially designated is changed, the identity of the successor will be given to the other Parties at least five (5) working days before the changes occur, unless impracticable, but in no event later

than the actual day the change is made. The City's Project Coordinator shall be subject to disapproval by EPA and shall have the technical expertise sufficient to oversee all aspects of the Work adequately. The City's Project Coordinator shall not be an attorney for the City in this matter. He or she may assign other representatives, including other contractors, to serve as a Site representative for oversight of performance of daily operations during remedial activities.

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- Plaintiff may designate other representatives, including, but not limited to, EPA and State employees, and federal and State contractors and consultants, to observe and monitor the progress of any activity undertaken pursuant to this Consent Decree. EPA's Project Coordinator and Alternate Project Coordinator shall have the authority lawfully vested in a Remedial Project Manager (RPM) and an On-Scene Coordinator (OSC) by the National Contingency Plan, 40 C.F.R. Part 300. addition, EPA's Project Coordinator or Alternate Project Coordinator shall have authority, consistent with the National Contingency Plan, to halt any Work required by this Consent Decree and to take any necessary response action when s/he determines that conditions at the Site constitute an emergency situation or may present an immediate threat to public health or welfare or the environment due to release or threatened release of Waste Material. The City may dispute the decision when to restart the Work halted by EPA's Project Coordinator or Alternate Project Coordinator.
- 43. EPA's Project Coordinator and the City's Project Coordinator will confer, at a minimum, on a monthly basis.

### XIII. ASSURANCE OF ABILITY TO COMPLETE WORK

- 44. Within thirty (30) days of entry of this Consent

  Decree, the City shall certify that it has the financial ability
  to complete the total estimated cost of the Work remaining to be
  performed by demonstrating that the City satisfies the
  requirements of 40 C.F. R. Part 254.143)f), or in one or more of
  the following forms:
- a. Internal financial information to allow EPA to determine that the City has sufficient assets available to perform the work;
- b. A surety bond guaranteeing performance of the Work;
- c. One or more irrevocable letters of credit equal to the total estimated cost of the Work;
  - d. A trust fund;

45. If the City can show that the estimated cost to complete the remaining Work has diminished below the amount set forth in Paragraph 44 above after entry of this Consent Decree, the City may, on any anniversary date of entry of this Consent Decree, or at any other time agreed to by the Parties, reduce the amount of the financial security provided under this Section to the estimated cost of the remaining work to be performed. The City shall submit a proposal for such reduction to EPA, in accordance with the requirements of this Section, and may reduce the amount of the security upon approval by EPA. In the event of a dispute, the City may reduce the amount of the security in accordance with the final administrative or judicial decision resolving the dispute.

46. The City may change the form of financial assurance provided under this Section at any time, upon notice to and approval by EPA, provided that the new form of assurance meets the requirements of this Section. In the event of a dispute, the City may change the form of the financial assurance only in accordance with the final administrative or judicial decision resolving the dispute.

47. The City shall resubmit sworn statements certifying assurance of ability to complete the Work annually, on the anniversary of the effective date of this Consent Decree. In the event that EPA determines at any time that the financial assurances provided pursuant to this Section are inadequate, the City shall, within thirty (30) days of receipt of notice of EPA's determination, obtain and present to EPA for approval another form or forms of financial assurance required by EPA. The City's inability to demonstrate financial ability to complete the Work shall not excuse performance of any activities required under this Consent Decree.

# XIV. CERTIFICATION OF COMPLETION

### 48. Completion of the Remedial Action

a. Within ninety (90) days after the City concludes that the Remedial Actions have been fully performed and the Performance Standards have been attained, the City shall schedule and conduct a pre-certification inspection to be attended by the City, EPA and the State. If, after the pre-certification inspection, the City still believes that the Remedial Actions have been fully performed and the Performance Standards have been attained, it shall submit a written report requesting

certification to EPA for approval, with a copy to the State, pursuant to Section XI (EPA Approval of Plans and Other Submissions) within thirty (30) days of the inspection. In the report, a registered professional engineer and the City's Project Coordinator shall state that the Remedial Actions have been completed in full satisfaction of the requirements of this Consent Decree. The written report shall include as-built drawings signed and stamped by a professional engineer. The report shall contain the following statement, signed by a responsible official who shall be designated in writing by the governing body of the City, or the City's Project Coordinator:

"To the best of my knowledge, after thorough investigation, I certify that the information contained in or accompanying this submission is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

If, after completion of the pre-certification inspection and receipt and review of the written report, EPA, after reasonable opportunity to review and comment by the State, determines that the Remedial Actions or any portion thereof have not been completed in accordance with this Consent Decree or that the Performance Standards have not been achieved, EPA will notify the City in writing of the activities that must be undertaken by the City pursuant to this Consent Decree to complete the Remedial Actions and achieve the Performance Standards. Provided, however, that EPA may only require the City to perform such activities pursuant to this Paragraph to the extent that such activities are consistent with the "scope of the remedy selected in the RODs," as that term is defined in Paragraph 14.b. EPA

will set forth in the notice a schedule for performance of such activities consistent with the Consent Decree and the SOWs or require the City to submit a schedule to EPA for approval pursuant to Section XI (EPA Approval of Plans and Other Submissions). The City shall perform all activities described in the notice in accordance with the specifications and schedules established pursuant to this Paragraph, subject to its right to invoke the dispute resolution procedures set forth in Section XIX (Dispute Resolution).

b. If EPA concludes, based on the initial or any subsequent report requesting Certification of Completion that the Remedial Actions have been performed in accordance with this Consent Decree and that the Performance Standards have been achieved, EPA, within a reasonable time, will so certify in writing to the City. Certification of Completion for OU2 shall constitute the Certification of Completion of the Remedial Actions for this Site for purposes of this Consent Decree, including, but not limited to, Section XXI (Covenants Not to Sue by Plaintiff). Certification of Completion of the Remedial Actions shall not affect the City's obligations under this Consent Decree.

## 49. Completion of the Work

a. Within ninety (90) days after the City concludes that all phases of the Work (including O & M), have been fully performed, the City shall schedule and conduct a precertification inspection to be attended by the City, EPA and the State. If, after the pre-certification inspection, the City still believes that the Work has been fully performed, the City

shall submit a written report by a registered professional engineer stating that the Work has been completed in full satisfaction of the requirements of this Consent Decree. The report shall contain the following statement, signed by a responsible official who shall be designated in writing by the governing body of the City, or the City's Project Coordinator:

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"To the best of my knowledge, after thorough investigation, I certify that the information contained in or accompanying this submission is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

If, after review of the written report, EPA, after reasonable opportunity to review and comment by the State, determines that any portion of the Work has not been completed in accordance with this Consent Decree, EPA will notify the City in writing of the activities that must be undertaken by the City pursuant to this Consent Decree to complete the Work. Provided, however, that EPA may only require the City to perform such activities pursuant to this Paragraph to the extent that such activities are consistent with the "scope of the remedy selected in the ROD," as that term is defined in Paragraph 14.b. EPA will set forth in the notice a schedule for performance of such activities consistent with the Consent Decree and the SOWs or require the City to submit a schedule to EPA for approval pursuant to Section XI (EPA Approval of Plans and Other Submissions). The City shall perform all activities described in the notice in accordance with the specifications and schedules established therein, subject to its right to invoke the dispute resolution procedures set forth in Section XIX (Dispute Resolution).

b. If EPA concludes, based on the initial or any subsequent request for Certification of Completion by the City and after a reasonable opportunity for review and comment by the State, that the Work has been performed in accordance with this Consent Decree, EPA, within a reasonable time, will so notify the City in writing.

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### XV. EMERGENCY RESPONSE

In the event any action or occurrence arising out of 50. the performance of the Work causes or threatens a release of Waste Material from the Site that constitutes an emergency situation or may present an immediate threat to public health or welfare or the environment, the City shall, subject to Paragraph 51, immediately take all appropriate action to prevent, abate, or minimize such release or threat of release, and shall immediately notify the EPA's Project Coordinator, or, if the Project Coordinator is unavailable, EPA's Alternate Project Coordinator. If neither of these persons is available, the City shall notify the EPA Emergency Response Unit, Region 9. The City shall take such actions in consultation with EPA's Project Coordinator or other available authorized EPA officer and in accordance with all applicable provisions of the Health and Safety Plans, the Contingency Plans, and any other applicable plans or documents developed pursuant to the SOWs. In the event that the City fails to take appropriate response action as required by this Section, and EPA or, as appropriate, the State takes such action instead, the City shall reimburse EPA and the State all costs of the response action not inconsistent with the NCP pursuant to Section XVI (Reimbursement of Response Costs).

51. Nothing in the preceding Paragraph or in this Consent Decree shall be deemed to limit any authority of the United States a) to take all appropriate action to protect human health and the environment or to prevent, abate, respond to, or minimize an actual or threatened release of Waste Material on, at, or from the Site, or b) to direct or order such action, or seek an order from the Court, to protect human health and the environment or to prevent, abate, respond to, or minimize an actual or threatened release of Waste Material on, at, or from the Site, subject to Section XXI (Covenants Not to Sue by Plaintiff).

### XVI. REIMBURSEMENT OF RESPONSE COSTS

# 52. The City shall:

- a. Within thrity (30) days of the effective date of this Consent Decree, Reimburse the EPA Hazardous Substance Superfund for all Past Response Cost in the amount of Four Hundred Fifty Four Thousand Five Hundred Ninety Nine Dollars and fifteen cents (\$454,599.15)
- b. Reimburse the EPA Hazardous Substance Superfund for all Future Response Costs not inconsistent with the National Contingency Plan. The United States will send the City a bill, on an annual basis, requiring payment. The bill shall include a Summary of Cost Information or an equivalent summary, which includes direct and indirect costs incurred by EPA, DOJ and EPA's contractors. The City shall make all payments within twelve weeks of the City's receipt of each bill requiring payment, except as otherwise provided in Paragraph 53.
- c. The City shall make all payments required by this

  Paragraph in the form of a certified or cashier's check or checks

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made payable to "EPA Hazardous Substance Superfund" and referencing the EPA Region and Site/Spill ID #09-H7, the DOJ case number 90-11-2-1203 and the name and address of the party making payment. The City shall send the check(s) to:

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United States Environmental Protection Agency Region IX Superfund Accounting P.O. Box 360863M Pittsburgh, PA 15251 Attn: Collection Officer for Superfund

The City shall send copies of the check(s) to the United States and to the EPA Project Coordinator as specified in Section XXVI (Notices and Submissions).

The City may contest payment of any Future Response 53. Costs under Paragraph 52 if it determines that the United States has made an accounting error or if it alleges that a cost item that is included represents costs that are inconsistent with the NCP. Such objection shall be made in writing within thirty (30) days of receipt of the bill and must be sent to the United States pursuant to Section XXVI (Notices and Submissions). objection shall specifically identify the contested Future Response Costs and the basis for objection. In the event of an objection, the City shall within the thirty (30) day period pay all uncontested Future Response Costs to the United States the manner described in Paragraph 52. The City shall send to the United States, as provided in Section XXVI (Notices and Submissions), a copy of the transmittal letter and check paying the uncontested Future Response Costs. Simultaneously, the City shall initiate the Dispute Resolution procedures in Section XIX (Dispute Resolution) for the contested Future Response Costs.

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the United States prevails in the dispute, within five (5) days of the resolution of the dispute, the City shall pay the sums due (with accrued interest) to the United States in the manner described in Paragraph 53. If the City prevails concerning any aspect of the contested costs, the City shall pay that portion of the costs (plus associated accrued interest) for which it did not prevail to the United States in the manner described in Paragraph 53. The dispute resolution procedures set forth in this Paragraph in conjunction with the procedures set forth in Section XIX (Dispute Resolution) shall be the exclusive mechanisms for resolving disputes regarding the City's obligation to reimburse the United States for its Future Response Costs.

54. In the event that the payments required by Paragraph 52 are not made within twelve weeks of the City's receipt of the bill, the City shall pay Interest on the unpaid balance. The Interest on Future Response Costs shall begin to accrue on the date of the bill. The Interest shall accrue through the date of the City's payment. Payments of Interest made under this Paragraph shall be in addition to such other remedies or sanctions available to Plaintiffs by virtue of the City's failure to make timely payments under this Section. The City shall make all payments required by this Paragraph in the manner described in Paragraph 52.

### XVII. INDEMNIFICATION AND INSURANCE

55. a. The United States does not assume any liability by entering into this agreement or by virtue of any designation of the City as EPA's authorized representatives under Section 104(e) of CERCLA. The City shall indemnify, save and hold harmless the

United States and its officials, agents, employees, contractors, subcontractors, or representatives for or from any and all claims or causes of action arising from, or on account of, negligent or other wrongful acts or omissions of the City, its officers, directors, employees, agents, contractors, subcontractors, and any persons acting on its behalf or under its control, in carrying out activities pursuant to this Consent Decree, including, but not limited to, any claims arising from any designation of the City as EPA's authorized representatives under Section 104(e) of CERCLA. Further, the City agrees to pay the United States all reasonable costs it incurs including, but not limited to, attorneys fees and other expenses of litigation and settlement arising from, or on account of, claims made against the United States based on negligent or other wrongful acts or omissions of the City, its officers, directors, employees, agents, contractors, subcontractors, and any persons acting on its behalf or under its control, in carrying out activities pursuant to this Consent Decree. The United States shall not be held out as a party to any contract entered into by or on behalf of the City in carrying out activities pursuant to this Consent Decree. Neither the City nor any such contractor shall be considered an agent of the United States.

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- b. The United States shall give the City notice of any claim for which the United States plans to seek indemnification pursuant to Paragraph 55.a., and shall consult with the City prior to settling such claim.
- 56. The City waives all claims against the United States for damages or reimbursement, or for set-off of any payments made

or to be made to the United States, arising from or on account of any contract, agreement, or arrangement between the City and any person for performance of Work on or relating to the Site, including, but not limited to, claims on account of construction delays. In addition, the City shall indemnify and hold harmless the United States with respect to any and all claims for damages or reimbursement arising from or on account of any contract, agreement, or arrangement between the City and any person for performance of Work on or relating to the Site, including, but not limited to, claims on account of construction delays.

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No later than two weeks before commencing any on-site Work, the City shall certify to EPA of its ability and practice to act as its self-insurer, and provide comprehensive general liability, including automobile liability, insurance with limits of up to two and one-half million dollars, naming the United States as an additional insured. The City shall make this certification of self-insurance annually, until the first anniversary of EPA's Certification of Completion of the Remedial Actions pursuant to Paragraph 48.b. of Section XIV (Certification of Completion) In addition, for the duration of this Consent Decree, the City shall satisfy, or shall ensure that its contractors or subcontractors satisfy, all applicable laws and regulations regarding the provision of worker's compensation insurance for all persons performing the Work on behalf of the City in furtherance of this Consent Decree. Prior to commencement of the Work under this Consent Decree, the City shall provide to EPA certificates of such insurance and a copy of each insurance policy. The City shall resubmit such certificates and copies of policies each year on the anniversary of the effective date of this Consent Decree. If the City demonstrates by evidence satisfactory to EPA that any contractor or subcontractor maintains insurance equivalent to that described above, or insurance covering the same risks but in a lesser amount, then, with respect to that contractor or subcontractor, the City need provide only that portion of the insurance described above which is not maintained by the contractor or subcontractor.

# XVIII. FORCE MAJEURE

- 58. "Force majeure," for purposes of this Consent Decree, is defined as any event arising from causes beyond the control of the City, of any entity controlled by the City, or of the City's contractors, that delays or prevents the performance of any obligation under this Consent Decree despite the City's best efforts to fulfill the obligation. The requirement that the City exercise "best efforts to fulfill the obligation" includes using best efforts to anticipate any potential force majeure event and best efforts to address the effects of any potential force majeure event (1) as it is occurring and (2) following the potential force majeure event, such that the delay is minimized to the greatest extent possible. "Force Majeure" does not include financial inability to complete the Work or a failure to attain the Performance Standards.
- 59. If any event occurs or has occurred that may delay the performance of any obligation under this Consent Decree, whether or not caused by a force majeure event, the City shall notify orally EPA's Project Coordinator or, in his or her absence, EPA's

Alternate Project Coordinator or, in the event both of EPA's designated representatives are unavailable, the Director of the Superfund Division, EPA Region IX, within forty-eight (48) hours of when the City first knew that the event might cause a delay. Within five (5) days thereafter, the City shall provide in writing to EPA and the State an explanation and description of the reasons for the delay; the estimated duration of the delay; all actions taken or to be taken to prevent or minimize the delay; a schedule for implementation of any measures to be taken to prevent or mitigate the delay or the effect of the delay; the City's rationale for attributing such delay to a force majeure event if it intends to assert such a claim; and a statement as to whether, in the opinion of the City, such event may cause or contribute to an endangerment to public health, welfare or the environment. The City shall include with any notice all available documentation supporting its claim that the delay was attributable to a force majeure. Failure to comply with the above requirements shall preclude the City from asserting any claim of force majeure for that event for the period of time of such failure to comply, and for any additional delay caused by such failure.

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60. If EPA agrees that the delay or anticipated delay is attributable to a force majeure event, the time for performance of the obligations under this Consent Decree that are affected by the force majeure event will be extended by EPA for such time as is necessary to complete those obligations. An extension of the time for performance of the obligations affected by the force majeure event shall not, in and of itself, extend the time for

performance of any other obligation. If EPA does not agree that the delay or anticipated delay has been or will be caused by a force majeure event, EPA will notify the City in writing of its decision. If EPA agrees that the delay is attributable to a force majeure event, EPA will notify the City in writing of the length of the extension, if any, for performance of the obligations affected by the force majeure event.

61. If the City elects to invoke the dispute resolution procedures set forth in Section XIX (Dispute Resolution), it shall do so no later than fifteen (15) days after receipt of EPA's notice. In any such proceeding, the City shall have the burden of demonstrating by a preponderance of the evidence that the delay or anticipated delay has been or will be caused by a force majeure event, that the duration of the delay or the extension sought was or will be warranted under the circumstances, that best efforts were exercised to avoid and mitigate the effects of the delay, and that the City complied with the requirements of Paragraphs 58 and 59, above. If the City carries this burden, the delay at issue shall be deemed not to be a violation by the City of the affected obligation of this Consent Decree identified to EPA and the Court.

## XIX. DISPUTE RESOLUTION

62. Unless otherwise expressly provided for in this Consent Decree, the dispute resolution procedures of this Section shall be the exclusive mechanism to resolve disputes arising under or with respect to this Consent Decree. However, the procedures set forth in this Section shall not apply to actions by the United States to enforce obligations of the City that have not been

disputed in accordance with this Section.

63. Any dispute which arises under or with respect to this Consent Decree shall in the first instance be the subject of informal negotiations between the parties to the dispute. Within five (5) days of the filing of an informal notice of dispute, either party may opt for the assistance of a neutral moderator to resolve the dispute. Unless the parties agree otherwise, mediation shall not last longer than thirty (30) days. Mediation expenses shall be borne by the City. In the absence of a request for mediation, the period for informal negotiations shall not exceed twenty (20) days from the time the dispute arises, unless it is modified by written agreement of the parties to the dispute. The dispute shall be considered to have arisen when one party sends the other parties a written Notice of Dispute.

- dispute by informal negotiations under the preceding Paragraph, then the position advanced by EPA shall be considered binding unless, within ten (10) days after the conclusion of the informal negotiation period, the City invokes the formal dispute resolution procedures of this Section by serving on the United States a written Statement of Position on the matter in dispute, including, but not limited to, any factual data, analysis or opinion supporting that position and any supporting documentation relied upon by the City. The Statement of Position shall specify the City's position as to whether formal dispute resolution should proceed under Paragraph 65 or Paragraph 66.
- b. Within two weeks after receipt of the City's Statement of Position, EPA will serve on the City its Statement

of Position, including, but not limited to, any factual data, analysis, or opinion supporting that position and all supporting documentation relied upon by EPA. EPA's Statement of Position shall include a statement as to whether formal dispute resolution should proceed under Paragraph 65 or 66. Within five (5) days after receipt of EPA's Statement of Position, the City may submit a Reply.

- c. If there is disagreement between EPA and the City as to whether dispute resolution should proceed under Paragraph 66 or 67, the parties to the dispute shall follow the procedures set forth in the paragraph determined by EPA to be applicable. However, if the City ultimately appeals to the Court to resolve the dispute, the Court shall determine which paragraph is applicable in accordance with the standards of applicability set forth in Paragraphs 65 and 66.
- the selection or adequacy of any response action and all other disputes that are accorded review on the administrative record under applicable principles of administrative law shall be conducted pursuant to the procedures set forth in this Paragraph. For purposes of this Paragraph, the adequacy of any response action includes, without limitation: (1) the adequacy or appropriateness of plans, procedures to implement plans, or any other items requiring approval by EPA under this Consent Decree; and (2) the adequacy of the performance of response actions taken pursuant to this Consent Decree. Nothing in this Consent Decree shall be construed to allow any dispute by the City regarding the validity of the RODS' provisions.

a. An administrative record of the dispute shall be maintained by EPA and shall contain all statements of position, including supporting documentation, submitted pursuant to this Section. Where appropriate, EPA may allow submission of supplemental statements of position by the parties to the dispute.

- b. The Director of the Superfund Division, EPA Region 9, will issue a final administrative decision resolving the dispute based on the administrative record described in Paragraph 65.a. This decision shall be binding upon the City, subject only to the right to seek judicial review pursuant to Paragraph 65.c. and d.
- c. Any administrative decision made by EPA pursuant to Paragraph 65.b. shall be subject to review by this Court, provided that a motion for judicial review of the decision is filed by the City with the Court and served on EPA within three weeks of receipt of EPA's decision. The motion shall include a description of the matter in dispute, the efforts made by the parties to resolve it, the relief requested, and the schedule, if any, within which the dispute must be resolved to ensure orderly implementation of this Consent Decree. The United States may file a response to the City's motion.
- d. In proceedings on any dispute governed by this Paragraph, the City shall have the burden of demonstrating that the decision of the Superfund Division Director is arbitrary and capricious or otherwise not in accordance with law. Judicial review of EPA's decision shall be on the administrative record compiled pursuant to Paragraph 65.a.

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66. Formal dispute resolution for disputes that neither pertain to the selection or adequacy of any response action nor are otherwise accorded review on the administrative record under applicable principles of administrative law, shall be governed by this Paragraph.

- a. Following receipt of the City's Statement of
  Position submitted pursuant to Paragraph 64, the Director of the
  Superfund Division, EPA Region 9, will issue a final decision
  resolving the dispute. The Superfund Division Director's
  decision shall be binding on the City unless, within three weeks
  of receipt of the decision, the City files with the Court and
  serves on EPA a motion for judicial review of the decision
  setting forth the matter in dispute, the efforts made by the
  parties to resolve it, the relief requested, and the schedule, if
  any, within which the dispute must be resolved to ensure orderly
  implementation of the Consent Decree. The United States may file
  a response to the City's motion.
- b. Judicial review of any dispute governed by this Paragraph shall be governed by applicable principles of law.
- 67. The invocation of formal dispute resolution procedures under this Section shall not extend, postpone or affect in any way any obligation of the City under this Consent Decree, not directly in dispute, unless EPA or the Court agrees otherwise. Stipulated penalties with respect to the disputed matter shall continue to accrue, but payment shall be stayed pending resolution of the dispute as provided in Paragraph 77. Notwithstanding the stay of payment, stipulated penalties shall accrue from the first day of noncompliance with any applicable

provision of this Consent Decree. Only in the event that the City does not prevail on the disputed issue shall stipulated penalties be assessed and paid as provided in Section XX (Stipulated Penalties).

# XX. STIPULATED PENALTIES

68. The City shall be liable for stipulated penalties in the amounts set forth in Paragraphs 69, 70 and 71 to the United States for failure to comply with the requirements of this Consent Decree specified below, unless excused under Section XVIII (Force Majeure). "Compliance" by the City shall include completion of the activities under this Consent Decree or any work plan or other plan approved under this Consent Decree identified below in accordance with all applicable requirements of law, this Consent Decree, the SOWs, and any plans or other documents approved by EPA pursuant to this Consent Decree and within the specified time schedules established by and approved under this Consent Decree.

69. a. The following stipulated penalties shall accrue per violation per day for any failure(s) to submit timely and adequate reports identified in Subparagraphs b or c, or for any failure to timely perform the work identified and scheduled in those reports:

Pena Per l		er Violat	ion ——	•	Period of Noncompliance Number of Days	
	\$5,00	00	•	•	1 through 7	
	\$10,	000	•	•	8 through 14	
	\$15,	000	•		15 and beyond	
	b.	Reports	for	OU1:		

1	i. Draft Remedial Action Work Plan
2	ii. Prefinal Remedial Action Work Plan
3	iii. Final Remedial Action Work Plan
4	iv. Construction Complete Report
5	v. Yearly Status Reports
6	c. Reports for OU2:
7	i. Draft Remedial Design/Remedial Action Report
8	ii. Prefinal Remedial Design/Remedial Action
9	Report
10	iii. Final Remedial Design/Remedial Action Report
11	iv. Construction Completion Report - Phase I
12	v. Evaluation of Phase I Report
13	vi. Construction Completion Report - Phase II
14	vii. Evaluation of Phase II Report
15	viii. Construction Completion Report - Phase III
16	ix. Evaluation of Phase III Report
17	x. Yearly Status Reports
18	70. For failure to submit timely or adequate reports or
19	documents required by this Consent Decree, other than those
20	identified in subparagraph 69(b) and (c), the following
21	stipulated penalties shall accrue per violation per day:
22	Penalty Per Violation Period of Noncompliance Per Day Number of Days
23	\$1,500 1 through 7
24	\$3,000 8 and beyond
25	71. In the event that EPA assumes performance of a portion
26	or all of the Work pursuant to Paragraph 85 of Section XXI
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(Covenants Not to Sue by Plaintiffs), the City shall be liable

for a stipulated penalty in the amount of \$1 million or the amount of stipulated penalties otherwise due for the City's failure to comply with the requirements of this Decree, whichever is greater.

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All penalties shall begin to accrue on the day after the complete performance is due or the day a violation occurs, and shall continue to accrue through the final day of the correction of the noncompliance or completion of the activity. However, stipulated penalties shall not accrue: (1) with respect to a deficient submission under Section XI (EPA Approval of Plans and Other Submissions), during the period, if any, beginning on the 15th day after EPA's receipt of such submission until the date that EPA notifies the City of any deficiency; (2) with respect to a decision by the Director of the Superfund Division, EPA Region 9, under Paragraph 65.b. or 66.a. of Section XIX (Dispute Resolution), during the period, if any, beginning on the 11th day after the date that the City replies to EPA's Statement of Position is received until the date that the Director issues a final decision regarding such dispute; or (3) with respect to judicial review by this Court of any dispute under Section XIX (Dispute Resolution), during the period, if any, beginning on the 15th day after the Court's receipt of the final submission regarding the dispute until the date that the Court issues a final decision regarding such dispute. Nothing herein shall prevent the simultaneous accrual of separate penalties for separate violations of this Consent Decree.

73. Following EPA's determination that the City has failed to comply with a requirement of this Consent Decree, EPA may

give the City written notification of the same and describe the noncompliance. EPA shall send the City a written demand for the payment of the penalties.

- 74. All penalties accruing under this Section shall be due and payable to the United States within thirty (30) days of the City's receipt from EPA of a demand for payment of the penalties, unless the City invokes the Dispute Resolution procedures under Section XIX (Dispute Resolution). All payments to the United States under this Section shall be paid by certified or cashier's check(s) made payable to "EPA Hazardous Substances Superfund," shall be paid in the manner directed in paragraph 52 of this Consent Decree and shall also indicate that the payment is for stipulated penalties.
- 75. The payment of penalties shall not alter in any way the City's obligation to complete the performance of the Work required under this Consent Decree.
- 76. Penalties shall continue to accrue as provided in Paragraph 70 during any dispute resolution period, but need not be paid until the following:
- a. If the dispute is resolved by agreement or by a decision of EPA that is not appealed to this Court, accrued penalties determined to be owing shall be paid to EPA within fifteen (15) days of the agreement or the receipt of EPA's decision or order;
- b. If the dispute is appealed to this Court and the United States prevails in whole or in part, the City shall pay all accrued penalties determined by the Court to be owed to EPA within sixty (60) days of receipt of the Court's decision or

order, except as provided in Subparagraph c below;

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any Party, the City shall pay all accrued penalties determined by the District Court to be owing to the United States into an interest-bearing escrow account within sixty (60) days of receipt of the Court's decision or order. Penalties shall be paid into this account as it continue to accrue, at least every sixty (60) days. Within fifteen (15) days of receipt of the final appellate court decision, the escrow agent shall pay the balance of the account to EPA or to the City to the extent that it prevail.

- 77. a. If the City fails to pay stipulated penalties when due, the United States may institute proceedings to collect the penalties, as well as interest. The City shall pay Interest on the unpaid balance, which shall begin to accrue on the date of demand made pursuant to Paragraph 73.
- b. Nothing in this Consent Decree shall be construed as prohibiting, altering, or in any way limiting the ability of the United States to seek any other remedies or sanctions available by virtue of the City's violation of this Decree or of the statutes and regulations upon which it is based, including, but not limited to, penalties pursuant to Section 122(1) of CERCLA. Provided, however, that the United States shall not seek civil penalties pursuant to Section 122(1) of CERCLA for any violation for which a stipulated penalty is provided herein, except in the case of a willful violation of the Consent Decree.
- 78. Notwithstanding any other provision of this Section, the United States may, in its unreviewable discretion, waive any portion of stipulated penalties that have accrued pursuant to

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this Consent Decree.

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# XXI. COVENANTS NOT TO SUE BY PLAINTIFF

- In consideration of the actions that will be performed and the payments that will be made by the City under the terms of the Consent Decree, and except as specifically provided in Paragraphs 81, 82, and 83 of this Section, the United States covenants not to sue or to take administrative action against the City pursuant to Sections 106 and 107(a) of CERCLA relating to the Site. Except with respect to future liability, these covenants not to sue shall take effect upon the receipt by EPA of the payments required by Paragraph 52 of Section XVI (Reimbursement of Response Costs). With respect to future liability, these covenants not to sue shall take effect upon Certification of Completion of Remedial Action by EPA pursuant to Paragraph 48.b of Section XIV (Certification of Completion). These covenants not to sue are conditioned upon the satisfactory performance by the City of its obligations under this Consent Decree. These covenants not to sue extend only to the City and do not extend to any other person.
- Notwithstanding any other provision of this Consent Decree, the United States reserves, and this Consent Decree is without prejudice to, the right to institute proceedings in this action or in a new action, or to issue an administrative order seeking to compel the City (1) to perform further response actions relating to the Site or (2) to reimburse the United States for additional costs of response if, prior to Certification of Completion of the Remedial Actions:

(ii) information, previously unknown to EPA, is received, in whole or in part,

and these previously unknown conditions or information together with any other relevant information indicate that the Remedial Actions are not protective of human health or the environment.

- 81. United States' Post-certification reservations.

  Notwithstanding any other provision of this Consent Decree, the United States reserves, and this Consent Decree is without prejudice to, the right to institute proceedings in this action or in a new action, or to issue an administrative order seeking to compel the City (1) to perform further response actions relating to the Site or (2) to reimburse the United States for additional costs of response if, subsequent to Certification of Completion of the Remedial Actions:
  - (I) conditions at the Site, previously unknown to EPA, are discovered, or
  - (ii) information, previously unknown to EPA, is received.

in whole or in part,

and these previously unknown conditions or this information together with other relevant information indicate that the Remedial Actions are not protective of human health or the environment.

82. For purposes of Paragraph 81, the information and the conditions known to EPA shall include only that information and those conditions known to EPA as of the dates the RODs were

signed and set forth in the Records of Decision for the Site and the administrative records supporting the Records of Decision.

For purposes of Paragraph 82, the information and the conditions known to EPA shall include only that information and those conditions known to EPA as of the date of Certification of Completion of the Remedial Actions and set forth in the Records of Decision, the administrative record supporting the Records of Decision, the post-RODs administrative record, or in any information received by EPA pursuant to the requirements of this Consent Decree prior to Certification of Completion of the Remedial Actions.

- 83. General reservations of rights. The covenants not to sue set forth above do not pertain to any matters other than those expressly specified in Paragraph 80. The United States reserves, and this Consent Decree is without prejudice to, all rights against the City with respect to all other matters, including but not limited to, the following:
  - (1) claims based on a failure by the City to meet a requirement of this Consent Decree;
  - (2) liability for future disposal of Waste Material at the Site, other than as provided in the RODs, the Work, or otherwise ordered by EPA;
  - (3) liability for damages for injury to, destruction of, or loss of natural resources, and for the costs of any natural resource damage assessments, pursuant to 107
    (a) (4) (C) of CERCLA;
    - (4) criminal liability;

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(5) liability for violations of federal or state law

which occur during or after implementation of the Remedial Actions; and

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- (6) liability, prior to Certification of
  Completion of the Remedial Actions, for additional
  response actions that EPA determines are necessary to
  achieve Performance Standards, but that cannot be
  required pursuant to Paragraph 14 (Modification of the
  SOWs or Related Work Plans);
- (7) liability for additional operable units at the Site;
- (8) liability for costs that the United States will incur related to the Site but are not within the definition of Future Response Costs.
- 84. Work Takeover In the event EPA determines that the City has ceased implementation of any portion of the Work, is seriously or repeatedly deficient or late in its performance of the Work, or is implementing the Work in a manner which may cause an endangerment to human health or the environment, EPA may assume the performance of all or any portions of the Work as EPA determines necessary. The City may invoke the procedures set forth in Section XIX (Dispute Resolution), Paragraph 65, for the sole purpose of disputing EPA's determination that takeover of the Work is warranted under this Paragraph. In no event shall the dispute delay EPA's takeover of the Work. Costs incurred by the United States in performing the Work pursuant to this Paragraph shall be considered Future Response Costs that the City shall pay pursuant to Section XVI (Reimbursement of Response Costs).

Notwithstanding any other provision of this Consent Decree, the United States retains all authority and reserves all 2 rights to take any and all response actions authorized by law. 3 4 XXII. COVENANTS BY THE CITY 5 Covenant Not to Sue. Subject to the reservations in 6 Paragraph 87, the City hereby covenants not to sue and agrees not 7 to assert any claims or causes of action against the United 8 States with respect to work pertaining to the Site and Future 9 Response Costs as defined herein or this Consent Decree, 10 including, but not limited to: 11 any direct or indirect claim for reimbursement 12 from the Hazardous Substance Superfund (established pursuant to 13 the Internal Revenue Code, 26 U.S.C. § 9507) through CERCLA 14 Sections 106(b)(2), 107, 111, 112, 113 or any other provision of 15 law; 16 b. any claims against the United States, including 17 any department, agency or instrumentality of the United States 18 under CERCLA Sections 107 or 113 related to the Site, or 19 any claims arising out of response activities at 20 the Site, including claims based on EPA's selection of response 21 actions, oversight of response activities or approval of plans 22 for such activities. 23 87. The City reserves, and this Consent Decree is without 24 prejudice to, claims against the United States, subject to the 25 provisions of Chapter 171 of Title 28 of the United States Code, 26 for money damages for injury or loss of property or personal 27 injury or death caused by the negligent or wrongful act or 28

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omission of any employee of the United States while acting within the scope of his or her office or employment under circumstances where the United States, if a private person, would be liable to the claimant in accordance with the law of the place where the act or omission occurred. However, any such claim shall not include a claim for any damages caused, in whole or in part, by the act or omission of any person, including any contractor, who is not a federal employee as that term is defined in 28 U.S.C. § 2671; nor shall any such claim include a claim based on EPA's selection of response actions, or the oversight or approval of the City's s plans or activities. The foregoing applies only to claims which are brought pursuant to any statute other than CERCLA and for which the waiver of sovereign immunity is found in a statute other than CERCLA;

88. Nothing in this Consent Decree shall be deemed to constitute preauthorization of a claim within the meaning of Section 111 of CERCLA, 42 U.S.C. § 9611, or 40 C.F.R. § 300.700(d).

### XXIII. EFFECT OF SETTLEMENT: CONTRIBUTION PROTECTION

89. Nothing in this Consent Decree shall be construed to create any rights in, or grant any cause of action to, any person not a Party to this Consent Decree. The preceding sentence shall not be construed to waive or nullify any rights that any person not a signatory to this decree may have under applicable law. Each of the Parties expressly reserves any and all rights (including, but not limited to, any right to contribution), defenses, claims, demands, and causes of action which each Party may have with respect to any matter, transaction, or occurrence

relating in any way to the Site against any person not a Party hereto.

- 90. The Parties agree, and by entering this Consent Decree this Court finds, that the City is entitled, as of the effective date of this Consent Decree, to protection from contribution actions or claims as provided by CERCLA Section 113(f)(2), 42 U.S.C. § 9613(f)(2) for matters addressed in this Consent Decree.
- 91. The "matters addressed" in this settlement are all response actions taken or to be taken and all response costs incurred ro to be incurred by the United States or any other person with respect to the Site. The "matters addressed" in this settlement do not include those response costs or response action as to which the United States has reserved its rights under this Consent Decree (except for claims for failure to comply with this Decree), in the event that the United States asserts rights against the City coming within the scope of such reservations.
  - 92. [RESERVED]

- 93. [RESERVED]
- 94. In any subsequent administrative or judicial proceeding initiated by the United States for injunctive relief, recovery of response costs, or other appropriate relief relating to the Site, the City shall not assert, and may not maintain, any defense or claim based upon the principles of waiver, res judicata, collateral estoppel, issue preclusion, claim-splitting, or other defenses based upon any contention that the claims raised by the United States in the subsequent proceeding were or should have been brought in the instant case; provided, however, that nothing in this Paragraph affects the enforceability of the covenants not

to sue set forth in Section XXI (Covenants Not to Sue by Plaintiff).

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## XXIV. ACCESS TO INFORMATION

- 95. The City shall provide to EPA, upon request, copies of all nonprivileged documents and information within its possession or control or that of its contractors or agents relating to activities at the Site or to the implementation of this Consent Decree, including, but not limited to, sampling, analysis, chain of custody records, manifests, trucking logs, receipts, reports, sample traffic routing, correspondence, or other documents or information related to the Work. The City shall also make available to EPA, for purposes of investigation, information gathering, or testimony, its employees, agents, or representatives with knowledge of relevant facts concerning the performance of the Work.
- 96. a. The City may assert business confidentiality claims covering part or all of the documents or information submitted to Plaintiff under this Consent Decree to the extent permitted by and in accordance with Section 104(e)(7) of CERCLA, 42 U.S.C. § 9604(e)(7), and 40 C.F.R. § 2.203(b). Documents or information determined to be confidential by EPA will be afforded the protection specified in 40 C.F.R. Part 2, Subpart B. If no claim of confidentiality accompanies documents or information when it are submitted to EPA, or if EPA has notified the City that the documents or information are not confidential under the standards of Section 104(e)(7) of CERCLA, the public may be given access to such documents or information without further notice to the City.

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b. The City may assert that certain documents, records and other information are privileged under the attorney-client privilege or any other privilege recognized by federal law. If the City asserts such a privilege in lieu of providing documents, it shall provide Plaintiff with the following: (1) the title of the document, record, or information; (2) the date of the document, record, or information; (3) the name and title of the author of the document, record, or information; (4) the name and title of each addressee and recipient; (5) a description of the contents of the document, record, or information: and (6) the privilege asserted by the City. However, no documents, reports or other information created or generated at the request of EPA pursuant to the requirements of the Consent Decree shall be withheld on the grounds that they are privileged.

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97. No claim of confidentiality shall be made with respect to any data, including, but not limited to, all sampling, analytical, monitoring, hydrogeologic, scientific, chemical, or engineering data, or any other documents or information evidencing conditions at or around the Site.

### XXV. RETENTION OF RECORDS

98. Until 10 years after the City's receipt of EPA's notification pursuant to Paragraph 49(b) of Section XIV (Certification of Completion of the Work), the City shall preserve and retain all records and documents now in its possession or control or which come into its possession or control that relate in any manner to the performance of the Work or liability of any person for response actions conducted and to be conducted at the Site, regardless of any document retention

policy to the contrary. Until ten (10) years after the City's receipt of EPA's notification pursuant to Paragraph 49.b of Section XIV (Certification of Completion), the City shall also instruct its contractors and agents to preserve all documents, records, and information of whatever kind, nature or description relating to the performance of the Work for a period of ten (10) years.

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99. At the conclusion of this document retention period, the City shall deliver these documents to EPA. The City may assert that certain documents, records and other information are privileged under the attorney-client privilege or any other privilege recognized by federal law. If the City asserts such a privilege, it shall provide Plaintiff with the following: the title of the document, record, or information; (2) the date of the document, record, or information; (3) the name and title of the author of the document, record, or information; (4) the name and title of each addressee and recipient; (5) a description of the subject of the document, record, or information; and (6) the privilege asserted by the City. However, no documents, reports or other information created or generated pursuant to the requirements of the Consent Decree shall be withheld on the grounds that they are privileged. The City hereby certifies that, to the best of its knowledge and belief, after thorough inquiry, it has not altered, mutilated, discarded, destroyed or otherwise disposed of any records, documents or other information relating to its potential liability regarding the Site since notification of potential liability by the United States or the State or the filing of suit against it regarding the Site and

that it has fully complied with any and all EPA requests for information pursuant to Section 104(e) and 122(e) of CERCLA, 42 2 U.S.C. 9604(e) and 9622(e), and Section 3007 of RCRA, 42 U.S.C. 3 4 6927. IVXX NOTICES AND SUBMISSIONS 5 100. Whenever, under the terms of this Consent Decree, 6 written notice is required to be given or a report or other 7 8 document is required to be sent by one Party to another, it shall 9 be directed to the individuals at the addresses specified below, unless those individuals or their successors give notice of a 10 change to the other Parties in writing. All notices and 11 submissions shall be considered effective upon receipt, unless 12 13 otherwise provided. Written notice as specified herein shall constitute complete satisfaction of any written notice 14 15 requirement of the Consent Decree with respect to the United States, EPA, and the City, respectively. 16 As to the United States: 17 18 Chief, Environmental Enforcement Section Environment and Natural Resources Division 19 U.S. Department of Justice P.O. Box 7611 20 Ben Franklin Station Washington, D.C. 20044 21 Re: DJ # 90-11-2-753 As to EPA: 22 Keith Takata 23 Director, Superfund Division 24 United States Environmental Protection Agency Region 9 25 75 Hawthorne St. San Francisco, CA 94105 26 and 27 Cynthia Wetmore 28 EPA Project Coordinator - 65 -

United States Environmental Protection Agency Region IX 2 75 Hawthorne St. San Francisco, CA 94105 3 As to the City: 4 City Project Coordinator to be designated by the City 5 and 6 Ronald C. Anderson, Jr. 7 Assistant Public Utilities Director Department of Public Utilities City of Fresno 8 2600 Fresno Street Fresno, CA 93721-3624 and 10 Martin D. Koczanowicz 11 Deputy City Attorney City Attorney's Office 12 City of Fresno 2600 Fresno Street 13 Fresno, CA 93721-3602 14 15 16 XXVII. EFFECTIVE DATE 101. The effective date of this Consent Decree shall be the 17 18 date upon which this Consent Decree is entered by the Court, except as otherwise provided herein. 19 20 XXVIII. RETENTION OF JURISDICTION 102. This Court retains jurisdiction over both the subject 21 matter of this Consent Decree and the City for the duration of 22 23 the performance of the terms and provisions of this Consent Decree for the purpose of enabling any of the Parties to apply to 24 the Court at any time for such further order, direction, and 25 26 relief as may be necessary or appropriate for the construction or modification of this Consent Decree, or to effectuate or enforce 27

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compliance with its terms, or to resolve disputes in accordance

with Section XIX (Dispute Resolution) hereof.

## XXIX. APPENDICES

103. The following appendices are attached to and incorporated into this Consent Decree:

"Appendix A" is the ROD signed September 30, 1993

"Appendix B" is the ROD signed September 30, 1996.

"Appendix C" is the SOW for Operable Unit One.

"Appendix D" is the SOW for Operable Unit Two.

# XXX. COMMUNITY RELATIONS

104. The City shall propose to EPA its participation in the community relations plan to be developed by EPA. EPA will determine the appropriate role for the City under the Plan. The City shall also cooperate with EPA in providing information regarding the Work to the public. As requested by EPA, the City shall participate in the preparation of such information for dissemination to the public and in public meetings which may be held or sponsored by EPA to explain activities at or relating to the Site.

## XXXI. MODIFICATION

105. Schedules specified in this Consent Decree for completion of the Work may be modified by agreement of EPA and the City. All such modifications shall be made in writing.

106. Except as provided in Paragraph 14 (Modification of the SOWs or Related Work Plans), no material modifications shall be made to the SOWs without written notification to and written approval of the United States, the City, and the Court. Prior to providing its approval to any modification, the United States will provide the State with a reasonable opportunity to review

and comment on the proposed modification. Modifications to the SOWs that do not materially alter that document may be made by written agreement between EPA, after providing the State with a reasonable opportunity to review and comment on the proposed modification, and the City.

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107. Nothing in this Decree shall be deemed to alter the Court's power to enforce, supervise or approve modifications to this Consent Decree.

# XXXII. LODGING AND OPPORTUNITY FOR PUBLIC COMMENT

108. This Consent Decree shall be lodged with the Court for a period of not less than thirty (30) days for public notice and comment in accordance with Section 122(d)(2) of CERCLA, 42 U.S.C. § 9622(d)(2), and 28 C.F.R. § 50.7. The United States reserves the right to withdraw or withhold its consent if the comments regarding the Consent Decree disclose facts or considerations which indicate that the Consent Decree is inappropriate, improper, or inadequate. The City consents to the entry of this Consent Decree without further notice.

109. If for any reason the Court should decline to approve this Consent Decree in the form presented, this agreement is voidable at the sole discretion of any Party and the terms of the agreement may not be used as evidence in any litigation between the Parties.

# XXXIII. <u>SIGNATORIES/SERVICE</u>

110. The undersigned representative of the City to this

Consent Decree and the Assistant Attorney General for Environment

and Natural Resources of the Department of Justice certify that

he or she is fully authorized to enter into the terms and

such Party to this document. 2 111. The City hereby agrees not to oppose entry of this 3 Consent Decree by this Court or to challenge any provision of this Consent Decree prior to entry, unless the United States has 5 notified the City in writing that it no longer supports entry of 6 the Consent Decree. 7 112. The City shall identify, on the attached signature 8 page, the name, address and telephone number of an agent who is 9 authorized to accept service of process by mail on behalf of that 10 Party with respect to all matters arising under or relating to 11 this Consent Decree. The City hereby agrees to accept service in 12 that manner and to waive the formal service requirements set 13 forth in Rule 4 of the Federal Rules of Civil Procedure and any 14 applicable local rules of this Court, including, but not limited 15 to, service of a summons. 16 SO ORDERED THIS qth DAY OF June, 1997. 17 18 19 20 21 22 23 24 25 26 27

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conditions of this Consent Decree and to execute and legally bind

THE UNDERSIGNED PARTIES enter into this Consent Decree in the		
matter of United States v. the City of Fresno, relating		
to the Fresno Sanitary Landfill Superfund Site.		
•		
FOR THE UNITED STATES OF AMERICA		
Date: 12/3-/57 Z-/11/		
Date: 12/13/47 LOIS J. SCHIFFER		
Assistant Attorney General Environment and Natural Resources		
Division U.S. Department of Justice		
Washington, D.C. 20530		
Wintrand L. Beach		
RICHARD L. BEAL Environmental Enforcement Section		
Environment and Natural Resources Division		
U.S. Department of Justice		
P.O. Box 7611 Ben Franklin Station		
Washington, D.C. 20044-7611		
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E DUDEDU METCHE		
E. ROBERT WRIGHT Assistant United States Attorney Eastern District of California		
3654 Federal Building Fresno, California 93721		
resno, carronna 33721		
N/A ALA		
STEVE A. HERMAN Assistant Administrator for		
Enforcement and Compliance Assurance		
U.S. Environmental Protection		
Agency 401 M Street, S.W.		
Washington, D.C. 20460		

Director, Superfund Division United States Environmental Protection Agency, Region IX 75 Hawthorne Street

San Francisco, CA 94105

THE UNDERSIGNED PARTY enters into this Consent Decree in the matter of United States v. the City of Fresno relating to the Fresno Sanitary Landfill Superfund Site.

FOR THE CITY OF FRESNO

JEFFREY N REID City Manager City of Fresno 2600 Fresno Street Fresno, CA 93721-3601

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Uniced States District Court for the Eastern District of California June 10, 1998

\* \* CERTIFICATE OF SERVICE \* \*

1:98-cv-05195

USA

v.

City of Fresno

I, the undersigned, hereby certify that I am an employee in the Office of the Clerk, U.S. District Court, Eastern District of California.

That on June 10, 1998, I SERVED a true and correct copy(ies) of the attached, by placing said copy(ies) in a postage paid envelope addressed to the person(s) hereinafter listed, by depositing said envelope in the U.S. Mail, or by placing said copy(ies) into an inter-office delivery receptacle located in the Clerk's office.

E Robert Wright United States Attorney's Office 1130 O Street Room 3654 Fresno, CA 93721 REC SMS

Jack L. Wagner, Clerk

BY:

Deputy Clerk

# APPENDIX C SCOPE OF WORK FRESNO SANITARY LANDFILL OPERABLE UNIT ONE REMEDIAL ACTION

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# SCOPE OF WORK OPERABLE UNIT ONE REMEDIAL ACTION

#### 1.0 INTRODUCTION AND OBJECTIVES

#### 1.1 Introduction

This Scope of Work (SOW) details the activities to be undertaken by the City of Fresno (the City) in compliance with this Decree at the Fresno Sanitary Landfill (FSL).

The Work includes all activities necessary for the implementation of the construction, compliance testing, and operation and maintenance of the gas control system, the cover system, the surface water management system, and if necessary, the contingency leachate collection system. The Work also includes the development and implementation of management plans as well as communication, integration and coordination procedures.

Operation and Maintenance activities shall be conducted during construction, compliance testing and afterwards in accordance with procedures described in this SOW.

The basic elements of work shall include:

The landfill gas control system includes the following components:

- Landfill Gas Recovery wells,
- Landfill Gas collection system,
- Landfill Gas treatment facility,
- Landfill Gas Monitoring equipment, and
- Condensate Monitoring, Collection and Disposal.

The cover system includes the following components:

- Cover, including foundation, low-permeability and drainage & filtration layers,
- Cover Protection, and
- Access and Bench Road.

The surface water management system includes the following components:

- Sedimentation and Erosion Controls,
- Retention Basins.
- Drainage Conveyances and Appurtenances.

The contingency leachate collection system, if necessary, includes the following components:

- Leachate Recovery,
- Leachate Collection, and
- Leachate Disposal.

In the event that work activities result in the alteration, destruction or abandonment of any site facility not related to the Work, but necessary for the site work, the Work Defendant shall either repair or replace, as necessary, such a facility with one that provides the same level of control or function as appropriate.

#### 1.2 Objectives

This section states the overall objectives for the work to be performed pursuant to the Decree. In addition, the objectives for components of the Work are summarized herein. The overall objective for the Work is to construct, operate, maintain, and monitor the Gas Control System, Cover System and Surface Water Management System to meet Performance Standards.

# 1.2.1 Gas Control System

The gas collection component will consist of the extraction wells, surface collectors, vacuum piping, monitoring probes and their appurtenant features. Objectives include the following:

- Minimize subsurface migration,
- Minimize surface emissions,
- Maximize collection system efficiency,
- Maximize potential for removal of recovered liquids, and
- Provide adequate destruction capacity for landfill gas collected.

#### 1.2.2 Cover Component

The cover component will consist of the foundation layer, the low-permeability layer, drainage and filtration layer, vegetative protective layer. Objectives include the following:

- Minimize rainwater infiltration into the trash prism,
- Maximize control of both subsurface migration and surface emissions of landfill gas,
- Minimize oxygen intrusion, and
- Maximize maintenance effectiveness.

#### 1.2.3 Surface Water Management System

The surface water management system includes elements to manage surface water run-off generated by storm events and irrigation operations. Objectives include the following:

- Minimize surface water infiltration,
- Mińimize erosion,
- Minimize maintenance requirements, and
- Minimize off-site impacts related to run-off quality and quantity.

#### 1.2.4 Contingency Leachate Collection System Component

The contingency leachate collection system component will consist of equipment to pump liquids from gas wells, if required, and related piping and appurtenances required to collect and convey recovered liquids to an appropriate location for treatment or disposal. Objectives include the following:

- Minimize the potential for system upsets,
- Minimize the impact of system upsets,
- Maximize collection of recovered liquids, and
- Treat recovered liquids from the gas control system to the applicable standards as required by receiving treatment facility standards.

#### 2.0 BACKGROUND

#### 2.1 Site Description

The FSL is located four miles southwest of the City of Fresno in Fresno County, California. The Landfill consists of approximately 145 acres and is bounded on the north by Jensen Avenue, on the east by West Avenue, on the south by North Avenue, and on the west by agricultural fields. The City of Fresno owns approximately 155 acres to the north, south and southwest of the landfill.

#### 2.2 Work Completed to Date

"Numerous investigations have been conducted at the FSL, beginning in 1971, with an initial evaluation of the soils beneath the landfill. Details regarding previous air and soil gas sampling and analytical results are summarized in the Remedial Investigation report [CDM, 1994] and were presented in the PreDesign Report [Geosyntec, 1995]. Details of the landfill gas well installation and the results of four quarterly landfill gas samples were presented in the 30% Design submittal [GeoSyntec, 1995], the 60% Design submittal [GeoSyntec, 1996] and the final Design [GeoSyntec, 1997]

#### 3.0 COORDINATION AND INTEGRATION

The City shall establish integration and coordination procedures to facilitate the performance of the Work, other Site operations and other Work at the Site. Activities performed pursuant to this Decree shall be integrated and coordinated with at least the following tasks:

- Site control and monitoring;
- Site security:
- Emergency response activities, if necessary; and
- Community relations activities.

The City shall participate in technical exchange meetings as appropriate to assure that information is exchanged and reviewed at all stages of the Work. These meetings may also be used to:

- discuss current and planned activities that may impact other work at the Site; and
- assist in the approval of deliverables by reporting on interim conclusions and build early technical consensus.

When necessary, other organizations, including state or local agencies, may attend meetings.

The City shall develop timely notification procedures for meetings, site activities or events that might affect any Work.

## 3.1 Coordination with Operable Unit 2 remedial design/action

In conjunction with the construction of the landfill cap and associated systems, the design and initial phasing of the groundwater remedy will be implemented. The two projects impact the physical and scheduling success of each other since the groundwater extracted from phase I groundwater wells will be used to irrigate the vegetation on the landfill cover, and the retention ponds will impact the flow of groundwater. It is essential that the two projects be integrated by the City.

The City shall establish technical and scheduling exchange meetings on a regular basis for coordination between the two Work efforts.

#### 4.0 ACTIVITIES

#### 4.1 Construction Planning Activities

#### 4.1.1 Remedial Action Work Plan

The City shall provide a Remedial Action Work Plan which provides for construction and implementation of the remedy. Upon its approval by EPA, the Remedial Action Work Plan shall be enforceable under this Consent Decree. The Remedial Action Work Plan shall include the following:

- the schedule for implementation of the Remedial Action;
- schedule for developing and submitting other required Remedial Action plans;
- methodology for implementation of the Construction Quality Assurance Plan ("CQAP")
- updates to the CQAP, if necessary;
- procurement plan, including bidding process and process for selecting contractor;
- methods for satisfying permitting requirements;
- methodology for implementation of the Operation and Maintenance Plan;
- tentative formulation of the Remedial Action team;
- methodology for decontamination of equipment and the disposal of contaminated material;
- procedures for involving regulating agencies;
- coordination procedures with work under Operable Unit 2, Groundwater Remediation;
- procedures and schedules for the review of contractor submittals;
- procedures for notification of meetings;
- · identification of key meetings;
- format of weekly construction meetings;
- procedures for interpreting the technical and schedule impacts of proposed field changes and contract modifications;
- procedures for documenting field changes;
- procedures for design modifications during construction activities including the submittal of Technical Memorandum pursuant to this Decree;
- formats for Incident Report, Compliance Testing Report, Noncompliance Notification, Compliance Action Plan, Noncompliance Correction Plan, Progress Reports (Monthly & Yearly reports for each activity) subsequent to approval of the Construction Completion Report; and
- community notification plan.

#### 4.1.2 Sampling Plans

Sampling Plans, whether for monitoring and sampling activities or for other activities, shall comply with EPA guidelines and shall include at least the following components:

- Sampling rationale and description of techniques used in selecting sampling sites (e.g., random, stratified, etc.);
- Specific sampling, preservation, and preparation procedures used, extraction methods, analytical references or description (including sample size, types of sample containers, applicable samplers, etc.) For nonstandard or modified sampling methods, detailed procedures with appropriate references are required;
- Sampling program organization;
- Description of sample container and sampler cleaning procedures for each type of container to be used following EPA guidelines or other appropriate procedures;
- Procedures to avoid sample contamination;
- Sample preservation methods and holding times, following EPA SW846 guidelines or other appropriate references;
- Sample transportation requirements (following EPA and Department of Transportation guidelines,

as applicable);

- Chain-of Custody procedures, following the EPA SW-846 guidelines, and other appropriate references;
- Procedures and responsibility for data validation, as appropriate;
- Sampling and sample custody procedures:
- Analytical methods/procedures;
- Analytical/statistical/control procedures, including requirements for accuracy, sensitivity, precision, sample quantities, calibration procedures, preventive maintenance, internal quality control checks, representative samples and data comparability;
- Data handling, analysis and reporting; and
- Data validation procedures.

# 4.1.3 Safety, Health and Emergency Response Plan (SHERP)

The SHERP shall establish safety, health and emergency response procedures for all Work activities to be conducted by the City. The SHERP shall address both workers at the site and public exposure to releases or spills at the site. The SHERP shall include at least the following basic elements:

- Introduction and Purpose;
- Applicable Laws and Regulations;
- Onsite Organization and Coordination;
- Medical Surveillance Program;
- Chemicals of Concern:
- Activities Hazard Analysis;
- Site Control, Work Zones, and Security Measures;
- General Safe Work practices:
- Training;
- Personnel Protective Equipment;
- Procedures for updating and distributing the SHERP;
- Record Keeping;
- Requirements for Subcontractors; and
- Procedures for special activities.

EPA's Comments on and approval of the Safety, Health and Emergency Response Plan shall not constitute EPA approval of the Health and Safety Protocols and other health and safety portions of this Plan.

# **4.2 Construction Activities**

Construction activities shall be guided by the approved Final Design, the Remedial Action Work Plan and other Management Plans. The City shall provide technical supervision and construction management during the Work construction activities. Construction activities shall include:

- Construction
- System Inspection
- Punch list activities, as necessary
- Reinspection(s), as necessary
- Pre-startup testing
- Startup testing
- Final inspection
- System Startup

If the City or EPA determines that a design modification is necessary during construction, a Technical Memorandum shall be submitted by the to EPA using procedures set forth in this Decree.

#### 4.2.1 Operation and Maintenance Manual

The Operations & Maintenance Plan shall be amended, if appropriate, to guide the operations, maintenance and monitoring activities required for the Work. The Operations & Maintenance Manual shall be amended to include, at a minimum the following:

- Manufacturer's O&M procedures;
- Operational Emergency response;
- Maintenance procedures and schedules;
- Monitoring procedures and schedules;
- Inspection program;
- Training requirements:
- Parts and equipment inventory;
- Well abandonment procedures; and

# Appendices with:

- Sampling Plans for each of the monitoring and sampling activities
- Compliance Testing Plan to guide compliance testing activities

#### 4.2.2 Construction Completion Report

Construction activities shall be considered complete after submittal to and approval by EPA of the Construction Completion Report. The format of the Construction Completion Report shall be presented in the Remedial Action Work Plan and shall include at a minimum

- Introduction:
- Revised As-Built Plans and specifications reflecting any modifications made to the Work Systems as part of the Compliance Testing Activities, as necessary;
- Revised Operations Plan reflecting any changes to operational procedures as a result of Compliance Testing Activities, as necessary;
- QA/QC records:
- Summary of design changes implemented by the Technical Memorandum process;
- Revised Operations and Maintenance Manual, as required; and
- Professional Engineer certification that Work has been completed according to design, and that As-Built Drawings are accurate

# 4.3 Compliance Testing Activities

The overall objective for compliance testing activities is to demonstrate that the constructed systems have achieved compliance with the Performance Standards. Compliance Testing may begin after approval of the Construction Completion Report and the Compliance Testing Plan.

# 4.3.1 Compliance Testing Plan

Defendants shall submit a Compliance Testing Plan. The Compliance Testing Plan shall describe the procedures to be used to demonstrate compliance and guide the compliance testing activities and acceptance procedures. The Compliance Testing Plan shall be submitted at three levels of completeness (Outline, Prefinal and Final). The Compliance Testing Plan shall include at a minimum:

- Identification of Performance Standards which are subject to compliance testing;
- Discussion of overall approach to demonstrating compliance with identified Performance Standards, including the manner in which statistical and temporal variations and non-systemic performance variances will be interpreted;
- Description of the specific monitoring procedures that will demonstrate compliance with Performance Standards, including monitoring frequency within the compliance testing periods
- Sampling Plans, as necessary;

- Monitoring schedule, taking into account personnel and equipment logistics and integration and coordination with other Site activities;
- Specific coordination procedures for any EPA split or replicate sampling activities; and
- Schedule for Compliance Testing.

#### 4.3.2 Compliance Testing Period

After EPA approval of the Final Construction Completion Report, and the Final Compliance Testing Plan, the City shall submit a Compliance Testing Request that specifies a start date for the first compliance testing period.

Compliance testing shall occur in consecutive 90 day Compliance Testing Periods. Compliance testing shall be conducted pursuant to specific procedures as set forth in the Compliance Testing Plan. The following general procedures shall be followed:

A Compliance Testing Period shall be considered successful if, pursuant to procedures set forth in the Compliance Testing Plan, the City demonstrate that all Performance Standards identified in the Compliance Testing Plan have been attained under normal operating conditions set forth in the Operations & Maintenance Manual and maintained pursuant to this Decree.

Monitoring and sampling to demonstrate compliance may be conducted more than once during the Compliance Testing Period pursuant to schedules set forth in the Compliance Testing Plan

In the event that monitoring shows noncompliance pursuant to procedures set forth in the Compliance Testing Plan, activities including but not limited to the following may be performed during the Compliance Testing Period

- Additional Monitoring and/or sampling, as necessary, prior to any other activities to eliminate the
  possibility of statistical aberration or sampling errors;
- Adjustments to controls which may after the performance of the Site Systems; and
- Additional construction activities

### 4.3.3 Compliance Testing Reports

A Compliance Testing report shall be submitted by the Work Defendant no later than six (6) weeks after conclusion of each Compliance Testing Period. The format of the Compliance Testing Report shall presented in the Operations & Maintenance Manual and shall include at a minimum:

- A statement as to whether the compliance Testing Period was successful or unsuccessful;
- A summary of monitoring and other activities related to compliance testing conducted during the Compliance Testing Period;
- A summary of monitoring and other data collected during the compliance Testing Period including the locations and sampling dates for each data point or set of data points relating to System performance or compliance testing;
- A summary of operating data, as necessary, relating to System performance or compliance testing;
- A summary of all noncompliance times and locations, including the nature of any noncompliance such as operational upsets or maintenance shutdowns;
- A summary of activities performed pursuant to the Decree:
- A summary of subsequent monitoring and other data collected for each noncompliance;.
- Maps and figures necessary to demonstrate geographical or temporal trends with respect to compliance:
- An explanation of any noncompliance which the City determine is due only to a statistical variation

or non-systemic variance (such as operational variation) and corrective actions planned; and A description of activities planned for the next Compliance testing Period.

Within forty-five (45) days of receipt of the Compliance Testing Report for the second of two consecutive successful Compliance Testing Periods, EPA shall notify the City whether Compliance Testing Activities have been successfully completed in accordance with this Decree.

# 4.4 Operation and Maintenance Activities

The City shall perform operation and maintenance activities after the compliance testing period is complete to ensure that the system operates properly and successfully and continues to meet the objectives and the performance standards of this Decree. The City shall perform monitoring, training and maintenance. The continued monitoring program shall include sampling and analysis elements performed compliance testing. The Monitoring Action Plan including the schedule for monitoring shall be included in the Remedial Action Work Plan.

If at any time during the Operation and Maintenance, the City fail to meet any Performance Standard, the City shall:

- Take all immediate steps necessary to protect public health and safety and the environment
- Submit a written Noncompliance Notification to EPA within five (5) days of receipt of the information indicating the noncompliance event. The format of the Noncompliance Notification shall be presented in the Operations & Maintenance Manual and shall include at a minimum:
  - •The time and location of the noncompliance event
  - •The nature of the noncompliance event including quantitative monitoring data
  - •Identification of the Performance Standard(s) that were not complied with
  - •Description of the activities already performed to verify the monitoring data or to remedy the noncompliance
  - •Additional monitoring data necessary to demonstrate compliance if compliance is achieved and maintained within five (5) days of receipt of the information indicating the noncompliance event

The City shall re-perform the Compliance Testing within 2 weeks of the unsuccessful testing. In the event that compliance is not attained again, the City shall submit a Compliance Action Plan within fifteen (15) days of receipt of the information indicating the second noncompliance event. The format of the Compliance Action Plan shall be presented in the Remedial Action Work Plan and shall include at a minimum:

- The information presented in the Noncompliance Notification and any additional information.
- Description of the activities necessary to attain compliance, including plans, specifications and calculations, as necessary
- A schedule for performance of the activities necessary to attain compliance, including the date that compliance is expected to be demonstrated and the schedule for additional performance testing.

The City shall commence performance of such activities upon written approval of the Compliance Action Plan by EPA. The City may commence performance of the activities described in the Compliance Action Plan upon verbal authorization to begin such activities by the EPA Project Coordinator. Such verbal authorization shall not constitute approval of the Compliance Action Plan or the schedules set forth in the Compliance Action Plan.

In the event that compliance is not achieved within the time specified in the Compliance Action Plan, the Work Defendants shall submit an additional Compliance Action Plan instead of the Noncompliance Correction Report.

In the event that major modifications to the Work systems are required during the Operation & Maintenance activities, the City shall submit a Technical Memorandum following the procedures set forth in Section of this SOW for each such modification.

#### **5.0 DELIVERABLES AND REVIEW PROCEDURES**

#### 5.1 Deliverables

The following items are considered to be deliverables under this Decree

#### Construction Planning:

- Draft Remedial Action Work Plan
- Prefinal Remedial Action Work Plan, if necessary
- Final Remedial Action Work Plan
- Monthly Progress Reports

#### Construction:

- Constructor Selection Notification
- Construction Completion Report (Prefinal & Final)
- Monthly Progress Reports

# Compliance Testing:

- Compliance Testing Reports
- Monthly Progress Reports

#### Operation and Maintenance:

- Noncompliance Notification, if necessary
- Monitoring Action Plan
- Yearly Status Reports

#### Technical Memorandum, if necessary

#### Minor Technical Memorandum

- Request with Outline and 10% Technical Memorandum
- Prefinal-90% Minor Technical Memorandum
- Final-100% Minor Technical Memorandum, if necessary

#### Major Technical Memorandum

- Request with Outline and 10% Technical memorandum
- Intermediate-60% Major Technical Memorandum
- Prefinal-90% Major Technical Memorandum
- Final-100% Major Technical Memorandum, if necessary

# 5.3 Potential Deliverables (Changes in Design)

The primary mechanism for modifying final plans and designs after approval shall be through submittal of Technical Memorandum. Field changes which do not necessitate material changes to the design shall be made by agreement of the Project Coordinators.

In the event that the City or EPA determines that modification of an approved plan or design

Operable Unit 1 RA SOW

package is necessary, the City shall submit a written request for the modification to the EPA Project Coordinator including:

- Reasons for the proposed modification
- Proposal for submittal of either a Minor or Major Technical Memorandum, as appropriate
- Outline and 10% Technical Memorandum

Upon EPA approval of the request and determination of whether a Minor or Major Technical Memorandum is appropriate, the City shall submit the Technical Memorandum pursuant to the schedule set forth in this Decree.

In addition to the Outline and 10% Technical Memorandum submitted with the request, Minor Technical Memorandum shall be submitted for review at two levels of completeness (Prefinal-90% and Final-100%). If EPA determines that the Prefinal 90% Minor Technical Memorandum is sufficient, EPA may approve the Prefinal-90% Minor Technical Memorandum as Final.

In addition to the Outline and 10% Technical Memorandum submitted with the request, Major Technical Memoranda shall be submitted for review at three levels of completeness (Intermediate 60%, Prefinal-90% and Final-100%). If EPA determines that the Prefinal-90% Major Technical Memorandum is sufficient, EPA may approve the Prefinal-90% Major Technical Memorandum as Final.

Each Technical Memorandum shall include least the following types of information, completed to a level compatible with the review stage:

- General description of the modification, including the purpose of its implementation;
- General arrangement of the modification showing its location;
- Typical details and cross sections for the modifications;
- Detailed Plans and Specifications, as appropriate;
- Description of tasks necessary to assure appropriate site activities occur through coordination and integration of the new activities with operation of existing systems;
- Engineering calculations which support the modification configuration, as appropriate; and:
- Amendments to the SHERP, Sampling Plans, or Operations & Maintenance Manual to accommodate new or modified activities, as appropriate.

#### 5.4 Modifications to Final Land Use

Open space is the land use designated in the approved Design. If the City elects to convert the open space to a regional park, the City shall assure that the integrity of the gas control system, the cover system, the surface water management system, and if necessary, the contingency leachate collection system is not compromised. Modifications to the approved Design that result in change of future land use is considered a major change and will require an amendment to the Remedial Action Work Plan. The amendment will contain the following:

- general description of modifications to approved Design;
- list of technical memo(s) to be submitted;
- whether the memo(s) are major or minor technical memorandums;
- general description of content of each technical memo including any analysis to be performed;
- schedule for submittal of technical memo(s);
- revised schedule for RA; and
- plan to implement elements of Work not impacted by the modifications.

All technical memos shall contain a statement by a registered engineer or geologist verifying that the proposed modifications to the approved Design will meet the design criteria and performance standards used in developing the final design.

The City shall have up to an additional nine months, but no less than three additional months, to construction complete if there is a change to the final land use designation. The amount of additional time shall be determined by EPA and shall be determined on the amount of additional design required and the City's willingness to proceed with Work elements not impacted by the modifications. Construction complete does not include improvements to the borrow area, vegetation on the cap in excess of what is required in the final design, or any improvement to areas not part of the landfill gas control system, cover system, surface water management system and contingency leachate collection system, if necessary.

#### 5.5 Review Procedures

This Section describes the review procedures required for the deliverables defined in this Decree, and the procedures for the construction, inspection and startup processes. Any deliverable not identified in this Section shall undergo, at a minimum, the review procedure and schedule set forth for the Minor Technical Memorandum. The Decree may require submission of additional deliverables not referred herein.

Review conferences are established to provide a format for presentation of EPA's review comments to the Defendants. This will facilitate the incorporation of EPA comments into the next phase of the Work submittal.

The City shall appoint one representative to be the official contact for EPA. Review comments and approval notices will be sent via facsimile and regular mail to the contact representative. The schedule for the next deliverable begins with delivery of the approval letter or letter to a proceed to the City representative via the facsimile.

#### 6.0 SCHEDULE

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This section provides schedules for the deliverable reports. If EPA determines it is appropriate, the time periods set forth pursuant to this schedule may be extended without requiring a formal modification to this Consent Decree. Requests for schedule modifications made by the City should include a discussion of the reason for the request. The City may elect to submit deliverables prior to the scheduled deliverable date. The following time periods apply to this project.

The Draft Remedial Action Work Plan shall be due eight weeks after entry of the Consent Decree.

The Prefinal Remedial Action Work Plan shall be due eight weeks after receipt of EPA approval of the draft.

The Final Remedial Action Work Plan shall be due six weeks after receipt of EPA approval of the Prefinal.

Construction Activities (i.e submittal of draft Construction Completion Report) shall be completed within twenty months after approval of Final Remedial Action Work Plan. (The Construction Complete may be extended by EPA based on factors described in

Section 5.4)

The final Construction Complete Report shall be due six weeks after receipt of EPA's comments on the draft Construction Completion Report.

Two Compliance Testing Periods shall be completed successfully within 12 months of completion of Construction Activities. The second Compliance Testing Period shall commence no sooner than 4 months after the first.

#### 7.0 PERFORMANCE STANDARDS

Performance Standards shall be defined to be those cleanup standards, standards of control and other substantive requirements, criteria or limitations, set forth in the 1993 ROD, the Consent Decree, and the SOW. The City shall meet the Performance Standards as set forth in this Decree.

# 7.1 Applicable or Relevant and Appropriate Regulations

The California Regional Water Quality Control Board Central Valley Region (CRWQCB-CVR) has identified Sections of Title 23, Chapter 15 of the California Code of Regulations as ARARs. The Sections EPA selects as ARARs are; Section 2510(a), 2510(b), 2510© and 2510(d) of Chapter 15, which pertain to applicability of chapter 15 and to engineered alternatives to the prescriptive standard for final cover at a waste management unit; Section 2580 of Chapter 15, which pertains to general closure requirements; Section 2581 of Chapter 15, pertaining to landfill closure requirements; Section 2540 of Chapter 15, which pertains to general construction standards for containment structures; Section 2541 of Chapter 15, which pertains to general design and construction requirements for containment structures; Section 2546 of Chapter 15, which pertains to the design, construction and maintenance of drainage, collection and holding facilities for waste management units; Section 2547 of Chapter 15, which pertains to design and construction of landfill structures to withstand seismic events; Section 2596 of Chapter 15, which pertains to the information required in the design reports and operations plan for containment structures, precipitation and drainage control facilities and ancillary facilities.

The California Integrated Waste Management Board (CIWMB) has identified Sections of Title 14, California Code of Regulations as ARARs. The Sections which EPA selects as ARARs are; Section 17705 of Title 14, which pertains to gas control; Section 17774 of Title 14, which pertains to construction quality assurance; Section 17783 of Title 14, which pertains to gas monitoring and control during closure and post-closure; Section 17783.9 of Title 14, which pertains to monitoring frequency; Section 17773 of Title 14, which pertains to final cover; Section 17777 of Title 14, which pertains to final site face; Section 17778 of Title 14, which pertains to final drainage; Section 17779 of Title 14, which pertains to slope protection and erosion control; Section 17778.5 of Title 14, which pertains to perimeter monitoring network; Section 17783.7 of Title 14, which pertains to structure monitoring; Section 17776 of Title 14, which pertains to final grading; Section 17783.15 of Title 14, which pertains to gas control; Section 17788 of Title 14, which pertains to post-closure maintenance; Section 17792 of Title 14 which pertains to change of ownership during closure and postclosure maintenance; Section 17796 of Title 14, which pertains to post-closure land use.

#### 7.2 Additional Performance Requirements

Ambient air concentrations of landfill gas contaminants or landfill gas treatment facility contaminant emissions shall not exceed a level, as determined by EPA, which would cause a 10<sup>-</sup> 6 excess cancer risk as determined pursuant to the California Air Pollution Control Officers Association (CAPCOA) Air Toxics "Hot Spots" Program Risk Assessment <u>Guidelines</u> (January 1991).

The trace gases to be monitored, sampled and controlled at the Fresno Sanitary Landfill Site shall be; methane, 1,2-dichloroethane, 1,1,1-trichloroethane, benzene, trichloroethene, methylene chloride, tetrachloroethane, vinyl chloride, and carbon tetrachloride. During the implementation of this Decree, EPA may require that trace gases be added to the list for monitoring; and the City may request that trace gases be removed from the list for monitoring subject to EPA approval.

At a threshold minimum, the remedy must meet the requirements of the Solid Waste Disposal Sites - Draft Rule 4642, which (1) establishes a reactive organic destruction efficiency of 98% for any reactive organic except methane, (2) requires that flares designed as part of the landfill gas control system be enclosed in a shroud, and (3) requires that the maximum concentration of organic compounds measured as methane, measured at any point on the surface of the landfill, shall not exceed 1000 ppm.

(Note: Section 4.2.1.6 of Rule 2201 of the Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD) exempts the selected interim remedy from the "offset" requirements which would otherwise be applied to the flare effluent, including oxides of nitrogen under the Rule.)

The landfill gas extraction system will be operated until LFG production has declined to the extent that the compliance points LFG monitoring (at the surface an organic compound maximum of 1000 ppm measured as methane and at the perimeter monitoring wells a maximum of 5% methane) requirements can be met without active LFG extraction. The LFG flares shall be operated as long as the LFG extraction system is in operation.

# APPENDIX D SCOPE OF WORK FRESNO SANITARY LANDFILL OPERABLE UNIT TWO REMEDIAL DESIGN/REMEDIAL ACTION

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# SCOPE OF WORK OPERABLE UNIT TWO REMEDIAL DESIGN/REMEDIAL ACTION

#### 1.0 INTRODUCTION AND OBJECTIVES

#### 1.1 Introduction

This Scope of Work (SOW) details the activities to be undertaken by the City of Fresno (the City) in compliance with this Consent Decree at the Fresno Sanitary Landfill (FSL).

The Work includes all activities necessary for the design, construction, system effectiveness evaluation, compliance testing, and operation and maintenance of the groundwater remediation system, including groundwater extraction, piping and associated equipment, groundwater treatment, groundwater monitoring and disposal of water. The Work also includes the development and implementation of management plans as well as communication, integration and coordination procedures.

The groundwater remediation shall be conducted in phases. The basic elements of Work shall include:

- Groundwater monitoring;
- Abandonment of certain wells;
- Institutional controls during remediation;
- Design of phasing approach;
- Design of extraction and treatment system:
- Installation and operation of phase I groundwater extraction wells and associated monitoring wells (landfill perimeter containment);
- Installation and operation of phase II groundwater extraction wells and associated monitoring wells (plume containment);
- Installation and operation of phase III groundwater extraction wells and associated monitoring wells (aguifer restoration);
- Analysis of each phase of the groundwater remedy;
- Treatment system for the extracted groundwater and all necessary piping; and
- Disposal of treated water.

In the event that Work activities result in the alteration, destruction or abandonment of any site facility not related to the Work but necessary for the site work, the City shall either repair or replace, as necessary, such a facility with one that provides the same level of control or function as appropriate.

# 1.2 Objectives

This section states the overall objectives for the Work to be performed pursuant to the Consent Decree. In addition, the objectives for components of the Work are summarized herein. The objective of the groundwater remediation work is to restore the aquifer to beneficial use in a timely and cost-effective manner. The overall objective for the Work is to design, evaluate, construct, operate, maintain, and monitor the Groundwater Restoration System to meet Performance Standards.

#### 1.2.1 Phase I - Source Control Phase

The objective of phase I is to create a hydraulic barrier along the perimeter of the landfill in the A and B aquifers, and C aquifer, if contamination is found in the C-zone during the monitoring program. The barrier system shall prevent the contaminated groundwater located beneath the landfill from mixing with

Operable Unit 2 RD/RA SOW

downgradient waters. The point of compliance in this phase is the landfill boundary. This is the point where leachate-contaminated groundwater will be contained.

An additional benefit of the Phase I system is to facilitate the Phase II goal of downgradient plume containment by changing the localized groundwater flow gradient to either a flat gradient (no movement) or reverse the flow to an easterly direction towards the landfill.

#### 1.2.2 Phase II - Plume Containment Phase

The objective of phase II is to prevent contamination from migrating to currently uncontaminated portions of the aquifer system. This is accomplished by preventing the groundwater plume from expanding in both a lateral and vertical direction. There are two points of compliance in this phase. The landfill boundary is the point of compliance where leachate-contaminated groundwater will be contained. The extent of the plume, to be defined in the groundwater monitoring program, will be the point of compliance where currently contaminated water will be contained.

#### 1.2.3 Phase III- Plume Restoration Phase

The objective of phase III is to actively restore the contaminated aquifer downgradient of the landfill to levels that comply with performance standards. The point of compliance in this alternative is the landfill boundary. This is the point where leachate-contaminated groundwater will be contained. All groundwater past this point will be restored to beneficial use.

#### 1.3 Overall Approach to Groundwater Remediation

The objective of phasing in the remedy is to collect data in early phases which can be used to refine and enhance later phases of the remedial action. Data will be collected during the operation of each phase to ensure the objectives of each phase are achieved, to evaluate potential technical impracticability issues of aquifer restoration, and to collect data to optimize the design of the next phase.

The City shall prepare a Remedial Design/Remedial Action Report which describes in detail the concept of the project, the Work to be performed and the schedule of the deliverables. The Remedial Design/Remedial Action Report shall be the structure for all Work to be performed. After the Remedial Design/Remedial Action Report is approved, the City shall proceed with the submittals for phase I work. After the phase I system has been constructed and operated sufficiently to collect necessary data, the City shall submit an Evaluation of Phase I report. This report, along with the Remedial Design/Remedial Action Report, shall be the basis of design for phase II. After EPA approval of the Final Design for phase II, the City shall proceed with phase II work. This process is repeated for phase III. The Evaluation of Phase II report, along with the Remedial Design/Remedial Action Report, shall be the basis of design for phase III.

The City shall monitor the groundwater to define the extent of the plume prior to completion of phase I. During implementation of phases, the groundwater monitoring program shall be designed to determine if the objectives of the phases are being met, to aid in the design of subsequent phases and to assess technical impracticability issues. After the complete system is in place, the groundwater monitoring program shall be designed to monitor progress towards the Performance Standards and to identify any modifications needed in the system. The City shall submit a Groundwater Monitoring Plan for the initial groundwater monitoring efforts and shall update the plan as new information is gathered and as the objectives of the groundwater monitoring changes as the project progresses. The Annual Status Testing Plan shall describe the results of the groundwater monitoring program after the complete system is in place.

The City shall treat the extracted groundwater to remove contamination prior to the ultimate disposition of the treated effluent. Treatment of the groundwater will be performed either at a treatment plant that would be located on-site at the landfill or at the Fresno Regional Wastewater Facilities (RWWF). The water must be treated to applicable regulatory standards depending on end use. The treatment system will also include storage tanks, piping, mechanical equipment, and other materials necessary to process the extracted groundwater.

#### 2.0 BACKGROUND

# 2.1 Site Description

The Fresno Sanitary Landfill is located four miles southwest of the City of Fresno in Fresno County, California. The Landfill consists of approximately 145 acres and is bounded on the north by Jensen Avenue, on the east by West Avenue, on the south by North Avenue, and on the west by agricultural fields. The City of Fresno owns approximately 155 acres to the north, south and southwest of the landfill. The groundwater underneath the site is part of a sole-source aquifer used as drinking water and irrigation water for the residents of Fresno. Eight water supply wells and many domestic wells are within 3 miles of the site.

The regional groundwater flow near the Fresno Sanitary Landfill is to the southwest although local irrigation pumping affects the local flow rates and direction. Pumping of agricultural wells near the site also induces downward vertical gradients that are not present during non-pumping months. Four hydrostatigraphic units are identified including (in descending order) a shallow sandy A aquifer at the water table, a silt and clay B aquitard, a B aquifer with interbedded silts and discontinuous sands, and a continuous sandy C aquifer at approximately 250 feet below the site.

It has been estimated that the plume extends 1300 feet down gradient of the landfill in aquifers A & B.

# 2.2 Work Completed to Date

Numerous investigations have been conducted at the Fresno Sanitary Landfill, beginning in 1971, with an initial evaluation of the soils beneath the landfill. Details regarding previous sampling and analytical results are summarized in the Remedial Investigation report dated May, 1994. The Risk Assessment was completed in September 1994. The Feasibility Study was completed in July 1996. The Record of Decision was signed in September 1996.

#### 3.0 COORDINATION AND INTEGRATION

The City shall establish integration and coordination procedures to facilitate the performance of the Work, other Site operations and other Work at the Site. Activities performed pursuant to this SOW shall be integrated and coordinated with at least the following tasks:

- Site control and monitoring:
- Site Security;
- Emergency response activities, if necessary; and
- Community relations activities.

The City shall participate in technical exchange meetings as appropriate to assure that information is exchanged and reviewed at all stages of the Work. These meetings may also be used to:

discuss current and planned activities that may impact other work at the Site:

discuss and present design and results during all phases of work; and

 assist in the approval of deliverables by reporting on interim conclusions and build early technical consensus.

When necessary, other organizations, including state or local agencies, may attend meetings. The EPA and State officials shall be notified of all meetings and the proposed agenda. The City shall develop timely notification procedures for meetings, site activities or events that might affect any Work.

# 3.1 Coordination with Operable Unit 1 Remedial Action

In conjunction with the design and initial phasing of the groundwater remedy, the construction of the landfill cap and associated systems will be implemented. The two projects impact the success of each other since the groundwater extracted from phase I groundwater wells will be used to irrigate the vegetation on the landfill cover, the retention ponds will impact the flow of groundwater, as well as other physical and scheduling-restrictions. It is essential that the two projects be integrated by the City.

The City shall establish technical and scheduling exchange meetings on a regular basis for coordination between the two Work efforts.

#### 4.0 ACTIVITIES

# 4.1 Remedial Design Planning Activities

# 4.1.1 Remedial Design/Remedial Action Report

The City shall provide a Remedial Design/Remedial Action Report (RD/RA Report) which provides for phasing, evaluation, design, and implementation of the remedy. Upon its approval by EPA, the RD/RA Report shall be enforceable under this Consent Decree. The RD/RA Report shall include the following:

a design basis for the groundwater extraction system and treatment facility design;

- identify and develop specific treatment effluent management options for the different phases and in conjunction with the OU1 Work. The plan for disposal shall be one or more of the following options:
  - Irrigation either through direct use on the landfill or by farmers in the vicinity of the landfill, or as a source of water for the irrigation canals;
  - Discharge into the Fresno drinking water supply distribution system;
  - Off-site disposal at the Fresno RWWF; and/or
  - Aguifer recharge through either reinjection or percolation ponds.

Effluent standards of the treated water will comply with the applicable regulations for the ultimate disposal. The City shall obtain applicable permits for ultimate disposal of treated water.;

 plan to implement institutional controls. The City shall coordinate with the County governmental agency which issues well permits, to restrict use or access to the contaminated aquifer during remediation.;

methods for satisfying permitting requirements;

- a comprehensive schedule for the entire project (after approval of the RD/RA Report, this
  schedule becomes enforceable under this Consent Decree). The schedule shall include a
  phasing schedule for the extraction well system (including monitoring system) and the schedule
  for developing and submitting each deliverable required of this SOW;
- preliminary plans for the entire system identifying each phase;
- preliminary construction plans and specifications for Phase I;
- outline and schedule for developing the Operation and Maintenance Plan;

- discussion of requirements for the technical impracticability waiver;
- outline and discussion of Evaluation of Data Reports for Phase I and Phase II, including comprehensive description of data collection and evaluation procedures during the phase I & II;
- outline and discussion of Annual Status Testing Plan including comprehensive description of data collection and evaluation procedures needed to predict time to achieve Performance Standards;
- coordination procedures for involving regulating agencies;
- coordination procedures with Work under Operable Unit 1;
- procedures and schedules for the review of contractor submittals;
- procedures for notification of meetings;
- identification of key meetings;
- community notification plan; and

# Appendices:

# Groundwater Monitoring Plan

The groundwater monitoring report shall present a plan to monitor the extent and movement of the groundwater plume. The plan shall include calculations and evaluations to demonstrate the plume is adequately defined and monitored. After approval of the Groundwater Monitoring Plan, the City shall proceed with installation of the elements in the plan.

#### Well Decommissioning Plan

The City shall decommission any groundwater supply and monitoring wells in the vicinity of the site that may allow cross-contamination between upper and lower aquifer units. The Well Decommissioning Plan, which must comply with state and local requirements, shall be submitted for approval prior to implementation.

#### 4.1.2 Sampling Plans

Sampling Plans, whether for monitoring and sampling activities or for other activities, shall comply with EPA guidelines and shall include at least the following components:

- Sampling rationale and description of techniques used in selecting sampling sites (e.g., random, stratified, etc.);
- Specific sampling, preservation, and preparation procedures used, extraction methods, analytical references or description (including sample size, types of sample containers, applicable samplers, etc.) For nonstandard or modified sampling methods, detailed procedures with appropriate references are required;
- Sampling program organization, if needed:
- Description of sample container and sampler cleaning procedures for each type of container to be used following EPA guidelines or other appropriate procedures;
- Procedures to avoid sample contamination:
- Sample preservation methods and holding times, following EPA SW846 guidelines or other appropriate references;
- Sample transportation requirements (following EPA and Department of Transportation guidelines, as applicable);
- Chain-of Custody procedures, following the EPA SW-846 guidelines, and other appropriate references;
- Procedures and responsibility for data validation, as appropriate;
- Sampling and sample custody procedures, including the sample site selection rationale;
- Analytical methods/procedures:
- Analytical/statistical/control procedures, including requirements for accuracy, sensitivity, precision, sample quantities, calibration procedures, preventive maintenance, internal quality control checks, representative samples and data comparability;
- Data handling, analysis and reporting; and
- Data validation procedures.

# 4.1.3 Safety, Health and Emergency Response Plan (SHERP)

The SHERP shall establish safety, health and emergency response procedures for all Work activities to be conducted by the City. The SHERP shall address both workers at the site and public exposure to releases or spills at the site. The SHERP shall include at least the following basic elements:

- Introduction and Purpose;
- Applicable Laws and Regulations;
- On site Organization and Coordination;
- Medical Surveillance Program;
- Chemicals of Concern;
- Activities Hazard Analysis;
- Site Control, Work Zones, and Security Measures;
- General Safe Work practices;
- Training;
- Personnel Protective Equipment:
- Procedures for updating and distributing the SHERP;
- Record Keeping;
- Requirements for Subcontractors; and
- Procedures for special activities.

EPA's comments on and approval of the Safety, Health and Emergency Response Plan shall not constitute EPA approval of the health and safety protocols and other health and safety portions of this Plan.

#### 4.2 Remedial Design

#### 4.2.1 Prefinal Design (90%)

The City shall submit the Prefinal Design for each Phase of Work according to the approved RD/RA Report. The Prefinal Design shall function as the draft version of the Final Design and shall include, at a minimum, the following:

- construction drawings and specifications. All specifications shall conform to CSI format;
- technical memorandum documenting changes from the basis of design established in the RD/RA Report;
- draft Operations & Maintenance Manual (or modifications to existing one for Phases II & III) which shall include:
  - operation of all equipment;
  - •start-up operation and testing period; and
  - contingency plan in case of equipment failure:
- methodology for decontamination of equipment and the disposal of contaminated material;
- procedures for interpreting the technical and schedule impacts of proposed field changes and contract modifications;
- procedures for documenting field changes;
- procedures verifying and documenting compliance with quality control requirements;
- preliminary cost estimate;
- update of Groundwater Monitoring Plan;
- plan for monitoring quality of effluent water; and
- testing required to evaluate operation of system and system efficiency.

If the comments on the Prefinal documents are numerous and extensive, EPA may require a written response to comments before EPA approves the Prefinal Design. The Phase II Prefinal Design and/or the Phase III Prefinal Design may be approved as the Final Design.

# 4.2.2 Final Design (100%)

The City shall prepare a Final Design which shall address comments generated from the Prefinal Design review and show any modifications of the design as a result of incorporation of the comments. All Final Design documents shall be approved by a professional Engineer of an approved technical discipline in California. EPA approval of the Final Design is required before initiating the RA, unless specifically authorized by EPA. The Final Design shall include the following:

- construction drawings and specifications;
- technical memorandum documenting changes from the basis of design established in the RD/RA Report;
- Operations & Maintenance Manual: and
- finalized elements required in the 90% Design.

# 4.3 Evaluation of Data during Phases

The City shall prepare an Evaluation of Phase report after Phase I and Phase II systems have been operated according to the schedule set forth in the RD/RA Report. Each report shall present the data collected, evaluation of the data and recommendations for implementing next phase. The Evaluation of Phase Report and the RD/RA Report will be used in preparing the Prefinal Design for the next phase.

#### 4.3.1 Evaluation of Phase I

The Evaluation of Phase I report shall at a minimum:

- present data collected during Phase I;
- evaluate data;
- modify conceptual design for Phase II based on data;
- present engineering analysis for modifications of Phase II;
- provide documentation that Phase I is meeting its objectives; and describe the extent to which Phase II, plume containment, and Phase III, aquifer restoration objectives are being met; and
- evaluate the adequacy of the current groundwater monitoring program.

The data to be collected and analyzed are as follows:

- Water level data for each aquifer zone to assess whether the landfill perimeter extraction wells are containing all of the contaminated groundwater beneath the landfill;
- Water level and water quality data from the monitoring wells and extraction wells to assess the downgradient extent of the off-site groundwater plume;
- Drawdown data in monitoring wells surrounding the extraction wells to evaluate the capture zone
  in order to optimize the design of the phase II wells, if needed;
- Drawdown data in monitoring wells surrounding the extraction wells to evaluate the efficiency in the capture zone of the landfill perimeter extraction wells; and
- Water level data from extraction and monitoring wells to evaluate the impact of the extraction wells and the effect of on-land discharge of the treated water on aquifer water levels.

#### 4.3.2 Evaluation of Phase II

After phase II of the remedy is fully implemented, the contaminated groundwater plume is fully contained. The Evaluation of Phase II report shall at a minimum:

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- present data collected during Phase II;
- evaluate data:
- modify conceptual design for Phase III based on data;
- present engineering analysis for modifications of Phase III;
- provide documentation that Phase II is meeting its objectives; and describe the extent to which Phase III, aguifer restoration objectives are being met; and
- evaluate the adequacy of the current groundwater monitoring program.

Data to be collected and analyzed during this phase is as follows:

- Water level data to assess whether the off-site plume is being contained both laterally and vertically by the extraction wells;
- Water quality data from the monitoring wells and extraction wells to assess rate of contaminant removal and determine the most effective way to install and operate phase III wells, if needed;
- Water level and quality data from the monitoring wells and extraction wells to assess rate and amount of contaminant removal from the phase II wells to determine effectiveness of the phase II system in terms of timely removal of contamination;
- Drawdown data in monitoring wells surrounding the pumping wells to assess influence of different pumping rates to efficiently design the aquifer restoration wells (phase III); and
- Water quality data from the monitoring wells and extraction wells around the lateral edges of the contaminated portion of the aquifer near the site to assess the rate of contaminant removal where groundwater is flushed through the aquifer system.

#### 4.4 Construction Activities

Construction activities shall be directed by the approved Final Design, the RD/RA Report and other Management Plans. The City shall provide technical supervision and construction management during the Work construction activities. Construction activities shall include:

- Construction;
- First System Inspection;
- Punch list activities, as necessary;
- Reinspection(s), as necessary;
- Pré-startup testing;
- Startup testing:
- Final inspection:
- System Startup and initial operating period to ensure system is operating properly and successfully; and
- Initial short-term operating period to ensure system is operating as designed.

If the City or EPA determine that a design modification is necessary during construction, a Technical Memorandum shall be submitted by the City to EPA using procedures set forth in this SOW.

#### 4.4.1 Operation and Maintenance Manual

The Operations & Maintenance Plan shall be amended, if appropriate, to guide the operations, maintenance and monitoring activities required for the Work. The Operations & Maintenance Manual shall be amended to include, at a minimum, the following:

- Manufacturer's O&M procedures;
- Operational Emergency response;
- Maintenance procedures and schedules;
- Compliance monitoring procedures and schedules;

- Parts and equipment inventory;
- Well abandonment procedures; and

# Appendices with:

- Sampling Plans for each of the monitoring and sampling activities
- Annual Status Testing Plan to guide testing activities

#### 4.4.2 Construction Completion Report

Construction activities shall be considered complete after submittal and approval of the Construction Completion Report to EPA. The format of the Construction Completion Report shall be presented in the RD/RA Report and shall include, at a minimum, the following:

- Introduction;
- Revised As-Built Plans and specifications reflecting any modifications made to the Work Systems
  as part of the Compliance Testing Activities, as necessary;
- Revised Operations Plan reflecting any changes to operational procedures as a result of Start-up Activities and initial operating period, as necessary;
- QA/QC records;
- Summary of design changes implemented by the Technical Memorandum process;
- Revised Operations and Maintenance Manual, as required; and
- Professional Engineer certification that Work has been completed according to design, and that As-Built Drawings are accurate

# 4.5 Operation and Maintenance Activities

The City shall perform operation and maintenance activities after construction is complete to ensure that the system meets the objectives and is optimally working toward compliance with the Performance Standards of this SOW. The City shall perform status testing at regular intervals, not less than biannually. The City shall submit an Annual Status report which shall contain at a minimum, the following

- A summary of monitoring and other activities related to O&M and compliance with this SOW conducted during the past Monitoring Period:
- A summary of monitoring and other data collected during the Monitoring Period including the locations and sampling dates for each data point or set of data points relating to system performance or compliance testing:
- A summary of operating data, as necessary, relating to System performance;
- A summary of all down times and locations, including the nature of any noncompliance such as operational upsets or maintenance shutdowns;
- A summary of activities performed pursuant to this SOW;
- Maps and figures necessary to demonstrate geographical or temporal trends with respect to compliance:
- A description of activities planned for the next Monitoring Period;
- Evaluation of data showing how the objective for each phase is being met;
- Evaluation of time to reach Performance Standards;
- Summary of all Data showing historical trends.;
- Identification of Performance Standards which are subject to compliance testing:
- Discussion of overall approach to demonstrating compliance with identified Performance Standards, including the manner in which statistical and temporal variations and non-systemic performance variances will be interpreted;
- Description of the specific monitoring procedures that will demonstrate compliance with Performance Standards, including monitoring frequency within the Monitoring periods

- Sampling Plans, as necessary:
- Monitoring schedule, taking into account personnel and equipment logistics and integration and coordination with other Site activities;
- Specific coordination procedures for any EPA split or replicate sampling activities; and
- Letters notifying the residents of the results of sampling of their wells.

If at any time during the Operation and Maintenance, the plume migrates into a residential well, the City shall:

- Take all immediate steps necessary to protect public health and safety and the environment;
- Submit a written notification to EPA within five (5) days of receipt of the information indicating the
  results of the sampling. The format of the notification shall be presented in the Operations &
  Maintenance Manual and shall include at a minimum;
  - The location of the sampling event;
  - Identification of the Performance Standard(s) that were not complied with, if a Performance Standard was exceeded;
  - Description of the activities already performed to verify the monitoring data or to remedy the exceedence;
  - Additional monitoring data necessary;
  - Description of the activities necessary to remedy the problems, including plans, specifications and calculations, as necessary; and
  - A schedule for performance of the activities necessary to remedy the problem.

In the event that major modifications to the Work systems are required during the Operation & Maintenance activities, the City shall submit a Technical Memorandum following the procedures set forth in this SOW for each such modification.

#### **5.0 DELIVERABLES AND REVIEW PROCEDURES**

# 5.1 Deliverables

The following items are considered to be deliverables under this Consent Decree. EPA may, upon request of the City, omit some deliverables.

#### Design Planning Deliverables:

- Draft RD/RA Report (prefinal, if necessary, and final)
- Well Decommissioning Plan (draft and final)
- Groundwater Monitoring Plans (draft and final)
- Sampling Plans (draft and final)
- Monthly Progress Reports

#### Design Deliverables:

- Prefinal Design, Phase I
- Final Design, Phase I
- Prefinal Design, Phase II
- Final Design, Phase II
- Prefinal Design, Phase III
- Final Design, Phase III
- Monthly Progress Reports

#### **Evaluation Deliverables:**

- Evaluation of Phase I Report (draft and final)
- Evaluation of Phase II Report (draft and final)
- Request for Technical Impracticability Waiver, if necessary (draft and final)
- Monthly Progress Reports

#### Construction Deliverables:

- Construction Completion Report for each phase (Prefinal & Final)
- Operations and Maintenance Manual
- Annual Status Testing Plan
- Monthly Progress Reports

#### Operation Maintenance Deliverables:

- Notification of Residential Well impacted, if necessary
- Annual Status Reports
- Request for Technical Impracticability Waiver, if necessary (draft and final)

# Technical Memorandum, if necessary

- Request with Outline and 10% Technical Memorandum
- Prefinal-90% Technical Memorandum
- Final-100% Technical Memorandum, if necessary

#### **5.3 Potential Deliverables (Changes in Design)**

The primary mechanism for modifying final plans and designs after approval shall be through submittal of Technical Memorandum. Field changes which do not necessitate material changes to the design shall be made by agreement of the Project Coordinators.

In the event that the City or EPA determine that modification of an approved plan or design package is necessary, the City shall submit a written request for the modification to the EPA Project Coordinator including:

- Reasons for the proposed modification
- Outline and 10% Technical Memorandum

Upon EPA approval of the request, the City shall submit the Technical Memorandum pursuant to the schedule set forth in this SOW.

The Technical Memorandum shall be submitted for review at two levels of completeness (Prefinal-90% and Final-100%). If EPA determines that the Prefinal 90% Minor Technical Memorandum is sufficient, EPA may approve the Prefinal-90% Minor Technical Memorandum as Final.

The Technical Memorandum shall include at least the following types of information, completed to a level compatible with the review stage:

- General description of the modification, including the purpose of its implementation;
  - General arrangement of the modification showing its location;
  - Typical details and cross sections for the modifications;
  - Detailed Plans and Specifications, as appropriate;
- Description of tasks necessary to assure appropriate site activities occur through coordination and integration of the new activities with operation of existing systems;
- Engineering calculations which support the modified configuration, as appropriate;
- Amendments to the SHERP, CQA, Sampling Plans, or Operations & Maintenance Manual to accommodate new or modified activities, as appropriate;

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#### 5.4 Review Procedures

This section describes the review procedures required for the deliverables defined in this SOW, and the procedures for the construction, inspection and startup processes. Any deliverable not identified in this SOW shall undergo, at a minimum, the review procedure and schedule set forth for the Technical Memorandum. The Consent Decree may require submission of additional deliverables not referred herein.

The City shall send a copy of all reports and transmittals to the lead contact at the California Department of Toxic Substance Control.

Review conferences are established to provide a format for presentation of EPA's review comments to the Defendants. This will facilitate the incorporation of EPA comments into the next phase of the Work submittal.

The City shall appoint one representative to be the official contact for EPA. Review comments and approval notices will be sent via facsimile and regular mail to the contact representative. The deliverable schedule commences with receipt of the facsimile to the one contact representative.

#### 6.0 SCHEDULE

This section provides schedules for the deliverable reports. If EPA determines it is appropriate, the time periods set forth pursuant to this schedule may be extended without requiring a formal modification to this Consent Decree. Requests for schedule modifications made by the City should include a discussion of the reason for the request. The City may elect to submit deliverables prior to the scheduled deliverable date. The following time periods apply to this project.

The Draft RD/RA Report shall be due twelve weeks after entry of the Consent Decree.

The Prefinal RD/RA Report shall be due six weeks after receipt of EPA approval of the Draft.

The Final RD/RA Report shall be due three weeks after receipt of EPA approval of the Prefinal.

The Prefinal Design, Phase I, shall be due thirteen weeks after receipt of EPA approval of the Final RD/RA Report.

The Final Design, Phase I, shall be due six weeks after receipt of EPA approval of the Prefinal Design, Phase I.

Phase I Construction Activities (i.e submittal of Construction Completion Report) shall be completed within twelve months after receipt of EPA approval of Final Design, Phase I.

The Evaluation of Phase I Report shall be due twelve months after submittal of the Construction Complete Report.

The Prefinal Design, Phase II, shall be due ten weeks after receipt of EPA approval of the Evaluation of Phase I Report.

The Final Design, Phase II, shall be due six weeks after receipt of EPA approval of the Prefinal Design, Phase II.

Phase II Construction Activities (i.e submittal of Construction Completion Report) shall be completed within six months after receipt of EPA approval of Final Design, Phase II.

The Evaluation of Phase II Report shall be due nine months after submittal of the Construction Complete Report.

The Prefinal Design, Phase III, if necessary, shall be due twenty four months weeks after receipt of EPA approval of the Evaluation of Phase II Report.

The Final Design, Phase III, shall be due six weeks after receipt of EPA approval of the Prefinal Design, Phase II.

Phase III Construction Activities (i.e submittal of Construction Completion Report) shall be completed within six months after receipt of EPA approval of Final Design, Phase III.

#### 7.0 PERFORMANCE STANDARDS

Performance Standards shall be defined to be those cleanup standards, standards of control and other substantive requirements, criteria or limitations, set forth in the 1993 ROD, the Consent Decree, and the SOW. The City shall meet the Performance Standards as set forth in this SOW.

7.1 Applicable or Relevant and Appropriate Regulations

The following federal regulations have been determined to be applicable or relevant and appropriate requirements at the Fresno Sanitary Landfill:

Safe Drinking Water Act 40CFR 141.61: MCLs, Provides maximum contaminant levels (MCLs) for drinking water.

<u>Safe Drinking Water Act 40CFR 144</u>: Underground Injection. Provides Requirements for Underground Injection Program.

<u>Clean Water Act 33 CFR Part 301 &302</u>: Effluent Limitations. Requires establishment of technology-based discharge limits for point sources of pollution

<u>Clean Water Act 33 CFR Part 307</u>: Toxic & Pretreatment Standards. Requires the establishment of pretreatment standards for the control of pollutants to POTW.

<u>Clean Air Act 40 CFR 61</u>: National Emission Standards for Hazardous Air Pollutants. Identifies and establishes emission standards for specific chemicals.

The following state of California regulations have been determined to be applicable or relevant and appropriate requirements at the Fresno Sanitary Landfill:

Water Quality Control Plan (Basin Plan) for the RWQCB, CCR: Establishes water quality objectives, including narrative and numerical standards, that protect the beneficial uses and water quality objectives of surface and ground waters in the region.

<u>Title 23. Division 3. Chapter 15. Article 123 CCR 2511(d)</u>: Actions taken by or at the direction of public agencies to clean up or abate conditions of pollution or nuisance resulting from unintentional or unauthorized releases of waste or pollutants to the environment are exempt from the requirements in the chapter; provided that wastes, pollutants, or contaminated materials removed from the immediate place of release shall be discharged according to Article 2 of this Chapter; and further, that remedial actions intended to contain such wastes at the place of release shall implement applicable provisions of this subchapter to the extent feasible.

<u>Title 23. Division 3. Chapter 15. Article 123 CCR 2510(g)</u>: Since the waste at the site will be contained, the requirement that persons responsible for discharges at waste management units which are closed, abandoned, or inactive on the effective date of these regulations may be required to develop and implement a monitoring program

in accordance with Article 5 of this chapter is applicable.

State Water Resources Control Board Resolution No. 92-49 III G.(As amended April 21, 1994): Establishes requirements for investigation and cleanup and abatement of discharges that impact or threaten water quality. Dischargers must clean up and abate the effects of discharges in a manner that promotes the attainment of either background water quality or the best water quality that is reasonable if background is not technically and economically feasible.

State Water Resources Control Board Resolution No. 88-63 ("Sources of Drinking Water Policy") (as contained in the RWQCB's Water Quality Control Plan) Specifies that, with certain exceptions, all ground and surface waters have the beneficial use of municipal or domestic water supply.

<u>Title 23. CCR. §2550.6</u>: Requires monitoring for compliance with remedial action objectives for three years from the date of achieving cleanup levels.

Title 23. CCR, §2550.7: Requires general soil, surface water, and groundwater monitoring.

<u>Title 23, CCR, §2550.9</u>: Requires an assessment of the nature and extent of the release, including a determination of the spatial distribution and concentration of each constituent.

<u>Title 23, CCR, §2550.10</u>: Requires implementation of corrective action measures that ensure that cleanup levels are achieved throughout the zone affected by the release by removing the waste constituents or treating them in place. Source control may be required. Also requires monitoring to determine the effectiveness of the corrective actions.

<u>Title 22, CCR, Division 4, Chapter 15, Articles 4, 5.5, and 8</u>: Requirements for public water systems. Includes maximum contaminant levels (MCLs).

Health and Safety Code §25249.5; Title 22, CCR, Division 2, Subdivision 1, Chapter 3: Prohibits the discharge or release to water or to land of a significant amount of any chemical known to the State of California to cause cancer or reproductive toxicity when the chemical will probably pass through a source of drinking water.

<u>Title 22, CCR, Division 4.5, Chapter 14, Article 6, §66264.90-66264.101</u>: Groundwater Protection. Creates broad groundwater monitoring and compliance standards. Includes concentrations standards, monitoring requirements and corrective action requirements.

<u>Title 22, CCR, Division 4.5, Chapter 14, Article 7, §66264.117</u>: Closure & Post Closure. States that monitoring, maintenance and reporting requirements must continue for 30 years past closure.

<u>Title 22, CCR, Division 4.5, Chapter 14, Article 9, §66264.170-66264.178</u>: Containers. Requirements for facilities that store containers of hazardous waste.

<u>Title 22, CCR, Division 4.5, Chapter 14, Article 10, §66264.190 -66264.200</u>: Tanks. Outlines design and management standards for tanks.

The clean-up goals for the chemicals of concern are as follows:

# Clean-up Goals for Contaminants of Concern in the Aquifer

Constituent	Concentration
30.1021.43.11	μg/l (micrograms per liter)
Trichloroethylene	5.0 μg/l
Tetrachloroethylene	5.0 μg/l
Vinyl chloride	0.5 μg/l
1,1-Dichloroethylene	6.0 μg/l
1,2-Dichloroethane	0.5 μg/l
trans-1,2 Dichloroethene	10 μg/l
cis-1,2 Dichloroethene	6.0 μg/l
1,2-Dichloropropane	5.0 μg/l
1,2-Dichlorobenzene	600 µg/l
1,4-Dichlorobenzene	5.0 μg/l
Benzene	1.0 μg/l
Chlorobenzene	70 μg/l
Chloroform	100 μg/l
1,1-Dichloroethane	5.0 µg/l
Trichlorofluoromethane	150 μg/l
Toluene	150 μg/l